

BEST DEVELOPMENT PRACTICES: A Primer for Smart Growth

Reid Ewing

with:
Robert Hodder

Based on a book prepared for the Florida Department of
Community Affairs and published by the American Planning Association
(in cooperation with the Urban Land Institute)



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The Smart Growth Network is a coalition of private sector, public sector, and nonprofit partners seeking to create better neighborhoods, communities, and regions across the United States. It is coordinated by the U.S. Environmental Protection Agency's Urban and Economic Development Division.

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The International City/County Management Association serves as the organizational home of the Smart Growth Network (SGN) and runs the SGN membership program.

For more information, contact the Smart Growth Network at 202/962-3591 or via the Smart Growth Web site, <http://www.smartgrowth.org>.



INTRODUCTION

U.S. metropolitan areas are spreading outward at unprecedented rates, causing alarm from Florida to California, from New Jersey to Washington State.¹ Without changes in policy and practice, most new development will take the form of suburban sprawl, sprawl being this nation's now-dominant development pattern. The economic and social costs will be enormous.²

In *Best Development Practices: A Primer*, good community development, as distinct from sprawl, is defined in operational terms. Public purposes loom large, though not at the expense of market considerations. Recommendations go to the enlightened edge of current development practice, but not so far beyond as to lose our target audience, the development community. The public purposes pursued though these best practices—among them, affordable housing, energy efficiency, preservation of natural areas, and sense of community—make good business sense.

Recommendations are also aimed at government planners and public officials. Set forth are broad principles upon which to base comprehensive plans and land development regulations, benchmarks against which to judge development proposals, and ample justification for good development practices that may have been advocated all along by knowledgeable officials.

BREAKING NEW GROUND

For 50 years or more, leading developers, planners, designers, environmentalists, and others have pointed the way toward better development. The American Planning Association (APA), Urban Land Institute (ULI), National Association of Home Builders (NAHB), and many others have published volumes on the subject.³

We borrow liberally from the best of earlier work. We also break new ground by blending contemporary and traditional design principles. Andres Duany, Peter Calthorpe, and other new urbanists raise powerful objections to contemporary suburbs. They advocate a return to urban design principles of pre-automotive times. But the automobile is a fact of life, and

the low-density lifestyles that are both cause and effect of auto-dependence clearly appeal to most Americans.

From opinion surveys, housing consumers seem to be split between the two models of development, contemporary suburban and traditional urban. Many favor features of both. The most traditional of the featured communities—Celebration and Southern Village—will use contemporary design features in later phases. The most contemporary—Bluewater Bay, Haile Plantation, and The Woodlands—are experimenting with traditional neighborhood design. The future belongs to hybrids, and these best practices are structured accordingly.

Contemporary vs. Traditional Designs

<i>Contemporary</i>	<i>Traditional</i>
<p>land uses separated and buffered</p> <p>housing types separated and buffered</p> <p>branching curved streets</p> <p>long blocks</p> <p>wide streets</p> <p>buildings set back from the street</p> <p>parking in front</p> <p>natural open spaces</p> <p>one unit per lot</p>	<p>land uses mixed seamlessly</p> <p>housing types mixed seamlessly</p> <p>gridded straight streets</p> <p>short blocks</p> <p>narrow streets</p> <p>buildings at the street</p> <p>parking in the rear</p> <p>formal public spaces</p> <p>two units per lot with accessory apartments</p>

QUEST FOR THE BEST

When it comes to development guidelines, visionary is good, utopian is not. If guidelines are viewed as utopian, they will be dismissed by the naturally conservative and results-oriented development industry. Others have suffered this fate.

We look to established, successful developments for best development practices. Featured developments are exemplary, not in every respect but in many respects. Collectively, they embody all the best development practices. These places serve as a reality check. They show what can reasonably be expected of developers. They prove that developers can incorporate quality features and still make healthy profits.

In The Woodlands, home builders are able to charge 15 to 25 percent more than they can elsewhere in Houston—for identical houses. Despite its higher prices, The Woodlands still outsells the competition by more than two-to-one. In Miami Lakes, starter homes that sold for \$20,000 when built in the early 60s now command prices of \$120,000. Virtually identical houses in nearby subdivisions sell for about half as much. These are not isolated examples. The book upon which this primer is based

is subtitled: *Doing the Right Thing and Making Money at the Same Time*. To reinforce the point, financial performance information is provided in the original.

Quality Pays for Itself



ABOUT THIS PRIMER

This primer is a condensation of principles and practices from *Best Development Practices*, a book prepared originally for Florida's Department of Community Affairs and updated for the American Planning Association and the Urban Land Institute (the latter representing the nation's most successful land developers).⁴

The original book offered eight to 12 "best" practices for each aspect of development. This primer captures the spirit of the individual practices through "cross-cutting principles," and then illustrates each principle by selecting two practices for discussion and illustration.

The original book featured seven Florida developments, selected on the basis of criteria outlined elsewhere.⁵ For this primer we have added seven exemplary developments from out of state, and one new, high-profile Florida development, for a total of 15.

While conceived for "green field" sites, our best practices may be useful in assessing the quality of existing development or giving direction to redevelopment plans. The underlying principles of good development are that basic and universal.

Featured Developments

Year Opened	Acreage	Population (1997)	Developer/Master Planner
<u>Outside Florida</u>			
1967	2,400	36,000	Kettler Brothers/RTKL
1995	670	200	George and Vicky Ranney/William Johnson
1986	5,000	40,000	Rancho Santa Margarita Joint Venture/PBR (Orange County, CA)
1968	400	2,500	Mutual of Omaha/SWA Group
1995	310	750	Bryan Properties/Stimmel & Associates (Omaha, NE)
1976	60	650	Michael and Judy Corbett/In-House (Chapel Hill, NC)
1974	26,500	50,000	Mitchell Energy & Development/William L. Pereira Associates (Houston, TX)
<u>Within Florida</u>			
1978	2,000	7,000	Raimund Herden, Dave Weaver and Jerry Zivan/Hennington, Durham & Richardson (Niceville)
1996	4,900	950	Disney Development/Cooper, Robertson & Partners (Orlando)
1981	1,660	4,500	Bob Kramer and Bob Rowe/In-House
1978	1,100	15,900	Genstar/Sasaki Associates (Gainesville)
1986	4,000	12,000	American General Insurance/Canin Associates (Miami)
1962	2,500	23,000	Graham Family/Lester Collins (Orlando)
1987	1,400	1,800	Drummond Mining/Glatting Jackson (Miami)
1987	5,250	9,000	Hugh Culverhouse/In-House (Lakeland)
			Palmer Ranch (Sarasota)

BEST LAND USE PRACTICES

CROSS-CUTTING PRINCIPLES: MIX LAND USES; CONCENTRATE DEVELOPMENT

- Practice 1: Keep vehicle miles of travel (VMT) below the area average.*
- Practice 2: Contribute to the area's jobs-housing balance.*
- Practice 3: Mix land uses at the finest grain the market will bear and include civic uses in the mix.*
- Practice 4: Develop in clusters and keep the clusters small.*
- Practice 5: Place higher density housing near commercial centers, transit lines, and parks.*
- Practice 6: Phase convenience shopping and recreational opportunities to keep pace with housing.*
- Practice 7: Make subdivisions into neighborhoods with well-defined centers and edges.*
- Practice 8: Reserve school sites and donate them if necessary to attract new schools.*
- Practice 9: Concentrate commercial development in compact centers or districts.*
- Practice 10: Make shopping centers and business parks into all-purpose activity centers.*
- Practice 11: Tame auto-oriented land uses, or at least separate them from pedestrian-oriented uses.*

In this first set of best practices, guidance is offered as to the mix of land uses and the layout of uses in relation to one another. Whatever form it takes—whether leapfrog, scattered, commercial strip, or spread development—sprawl is characterized by poor accessibility and lack of common open space. Here, we strive to promote good accessibility of workers to jobs, students to schools, and transit users to transit lines. Good accessibility translates into higher property values, less time wasted in travel, less auto-dependence and related air pollution and fuel consumption.

We also promote the set aside of ample open space. Natural areas support wildlife, enhance water quality, recharge groundwater supplies, hold stormwater, and provide views and recreational opportunities. Well-designed and well-located public spaces give otherwise monotonous subdivisions a sense of place and draw residents out of their private enclaves.

MIX LAND USES

Illustrative Practice: Contribute to the area's jobs-housing balance.

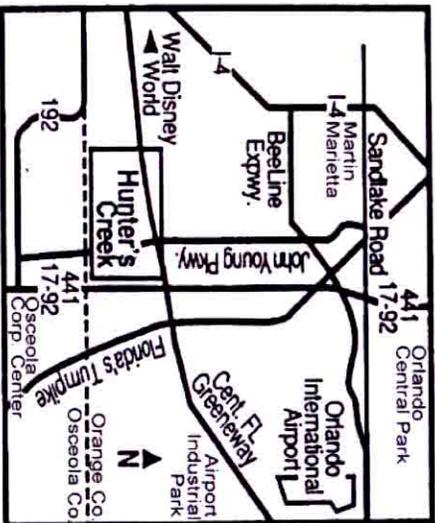
New communities often market themselves as places where people can both live and work. It is a good selling point and a worthy goal. At the scale of a new community (thousands of acres), a jobs-housing balance becomes achievable. That is, jobs and workers can be brought into numerical balance, usually at somewhere between 1.3 and

1.7 jobs per household; and housing prices can at least somewhat match worker incomes.

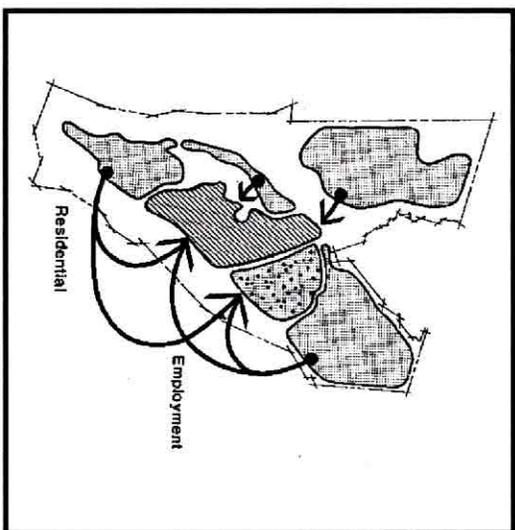
For smaller-scale projects, it becomes less practical to match jobs and housing, and even when a nominal match is achieved, a smaller proportion of work trips will remain on-site. But projects can still contribute to the jobs-housing balance in the larger subregion of which they are a part.

Celebration and Hunner's Creek are exemplary because they supply middle-income housing to residents on the "side of town" with a surplus of middle-income jobs. Miami Lakes, Rancho Santa Margarita, and The Woodlands are exemplary because they strive for jobs-housing balance on-site. As a result, about 10% of all work trips remain within these communities. In some new communities, more than one third are captured internally.

*"Right Side of Town"
 (Hunner's Creek)*



*Jobs-Housing Balance
 (Rancho Santa Margarita)*



Illustrative Practice: Mix land uses at the finest grain the market will bear and include civic uses in the mix.

Mixed-use development has many advantages. One is the ability to capture some trips that would otherwise end up on external roads. Another is the relative freedom afforded those who cannot drive when destinations are within walking distance. Additional benefits include: a positive fiscal impact on local governments when commercial development is part of the mix; a positive impact on residential property values when commercial and civic uses are close by (though not next door); and a greater sense of community when commercial and civic uses are mixed in with residential.

All contemporary developments featured in this primer have on-site commercial uses, complementing residential. This, perhaps more than anything else, is what makes them exemplary. Several incorporate multiple civic uses, which makes them feel like "real towns." In historic towns, civic uses typically occupy 10 percent of total land area. That is a good target for contemporary developers.

Most featured developments have relatively fine-grained development patterns, at least by the standards of suburbia. By "grain" of devel-

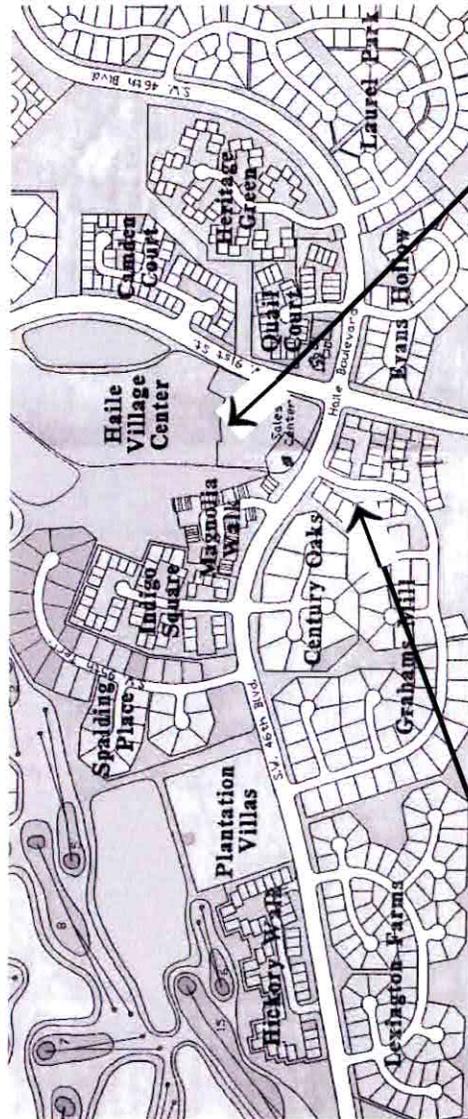
opment, we mean the typical area devoted to a single land use. Individual apartment buildings interspersed among single-family homes create a fine grain. Large apartment complexes separated from single-family neighborhoods produce a coarse grain.

Haile Plantation has small clusters of townhouses, patio homes, and custom homes, all within a five-minute walk of the Haile Village Center. The Village Center includes shops and

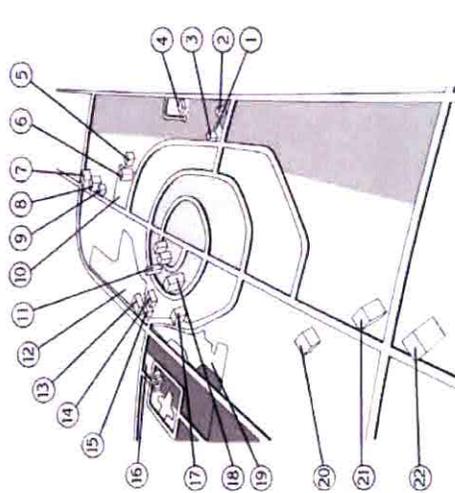
apartments back-to-back and under-over, and single-family houses down the street. At the relatively fine grain of this development, different land uses do not overwhelm each other and can easily be buffered or made architecturally compatible.

Celebration has an even finer grain, separated only by alleys or streets, suggesting that the market may be more receptive to mixing than previously assumed.

Relatively Fine Grain (Haile Plantation)



"Real Town" with Civic Uses (Miami Lakes)



- 1. Picnic Park
 - 2. Police
 - 3. Lake Katherine Shopping Center
 - 4. Miami Lakes Technical Education Center
 - 5. Miami Lakes Montessori School
 - 6. Miami Lakes Junior High School
 - 7. Fire Station
 - 8. Library
 - 9. Windmill Gate Shopping Center
 - 10. School Park
 - 11. Main Street Shopping
 - 12. Championship 18-hole Golf Course
 - 13. Miami Lakes Golf Resort
 - 14. Cypress Village Shopping Center
 - 15. Miami Lakes Community Center
 - 16. 10-Acre Park
 - 17. Miami Lakes Athletic Club
 - 18. Miami Lakes Inn
 - 19. Lighted Executive Golf Course
 - 20. Miami Lakes Elementary School
 - 21. Lake Patricia Shopping Center
 - 22. Hialeah/Miami Lakes High School
- Miami Lakes Business Park East
 ■ Miami Lakes Business Park West
 ■ Town Center

CONCENTRATE DEVELOPMENT

Illustrative Practice: Develop in clusters and keep the clusters small.

For as long as APA, ULI, and NAHB have promoted mixed-use development, they have also championed cluster development. The two go hand-in-hand. Cluster provides natural separations between land uses that would otherwise be incompatible.

Cluster developments are built at gross densities comparable to conventional developments, but leave more open space by reducing lot sizes. This saves money by limiting site preparation and grading to certain areas, reducing the length of residential streets and utilities, and permitting the use of natural drainage in lieu of costly curbs and gutters, inlets, and underground storm sewers. All this can knock a third off site development costs.

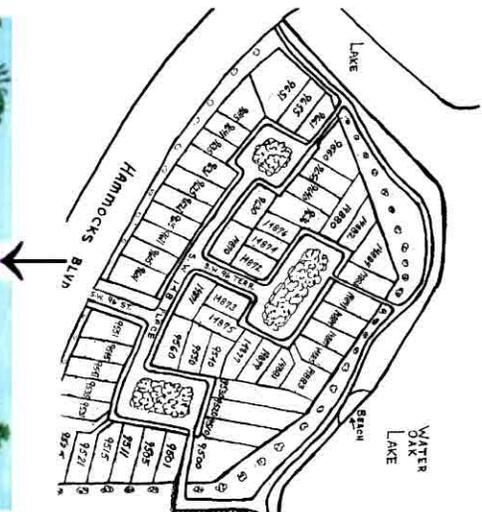
Air conditioning loads are moderated by retained green spaces, stormwater runoff volumes moderated by permeable surfaces, and landscape irrigation requirements moderated by smaller lots and lawns. Valuable natural features can be preserved. Planned and casual interaction can occur in public spaces, contributing to the sense of neighborliness and community.

At The Hammocks, all single-family housing has been built under cluster zoning. This has meant that green spaces could be incorporated

into neighborhoods and a splendid greenway system could be maintained between the neighborhoods and lakes. The Hammocks achieves an average net residential density of 11.5 units per acre, twice its gross density.

As with mixed use, cluster development patterns can be fine- or coarse-grained. A fine-grained pattern is preferred for several reasons.

Greenways and Lakes Under Cluster Zoning (The Hammocks)



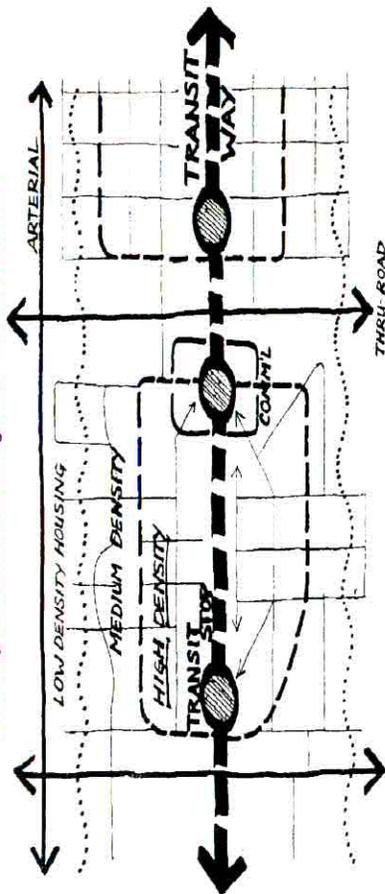
Small housing clusters are safer than large ones because residents can identify "outsiders" and are more apt to exercise territorial control. Small increments of development minimize carrying costs and risks associated with economic downturn; developers and builders can learn from small rather than big mistakes. Small clusters feel more like places and less like projects. By "small" housing clusters, we mean 40 to 80 single-family units on average, no more.

At Montgomery Village, housing projects have gotten smaller and smaller with each successive phase of development. The developer wants frequent grand openings and small inventories as consumer tastes change, as when 20-foot-wide units replaced 18-foot-wide units in the townhouse market. He also wants to phase his infrastructure investments efficiently, and small projects have proven more efficient than large ones.

Housing Clusters (Montgomery Village)



Density Gradient Along the Transit Route



Source: H. Rabinowitz and E. Beinhorn, *The New Suburb*, Technology Sharing Program, U.S. Department of Transportation, Washington, D.C., 1991, cover graphic.

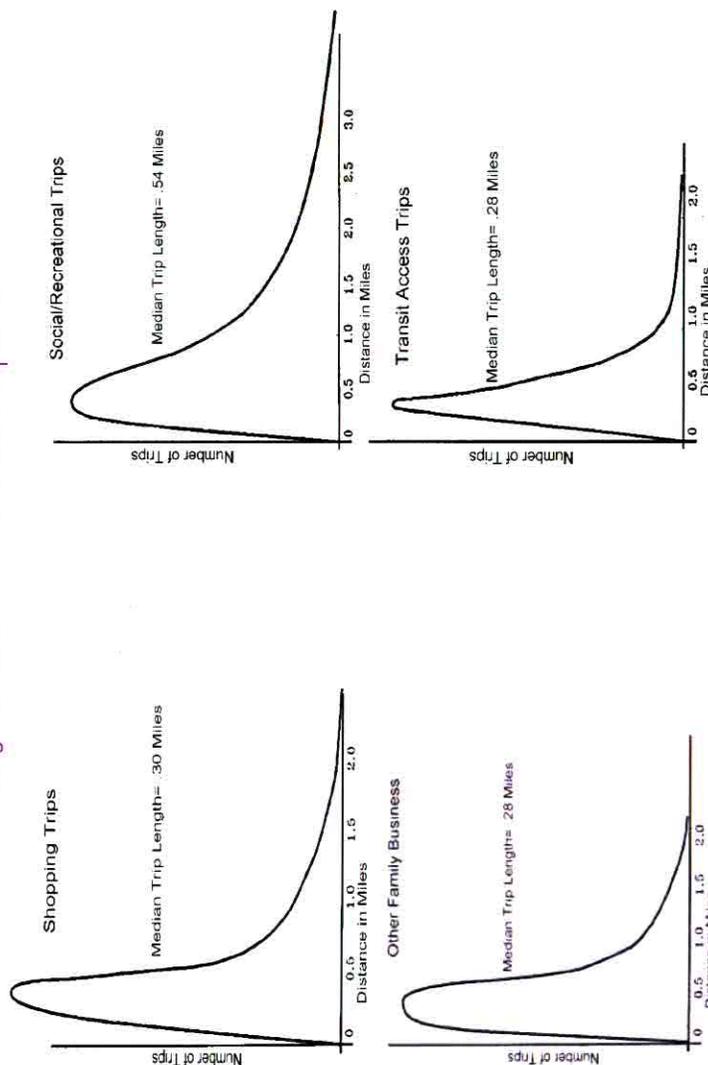
Illustrative Practice: Place higher density and senior housing near commercial centers, transit lines, and community facilities.

In a mixed-use development, we must decide how uses will be arranged in relation to each other. Conventional land use controls, which separate activities deemed incompatible, are no longer terribly useful. Except for heavy industry and big-box retail, compatibility is not an issue as long as clusters are small and aesthetics are controlled.

Instead, accessibility becomes the overriding consideration in land planning. By placing higher density and senior housing near commercial centers, transit lines, and community facilities, travel opportunities are provided for the residents most likely to need alternatives to the car. Also, housing is made more affordable for those on the tightest budgets. As the new urbanists are fond of saying, the best affordable housing program is one that eliminates the need for a second car.

Following this practice, small commercial centers—which have trouble competing for consumers in cars—suddenly become viable because pedestrian traffic always favors nearby stores. Bus service—which is predominately accessed on foot—also becomes viable when higher density and senior housing are placed within walking distance. Commercial centers, transit lines, and community facilities should be no more than 1/4 mile from target housing if we expect anyone to walk to them.

Walking Distances for Different Purposes

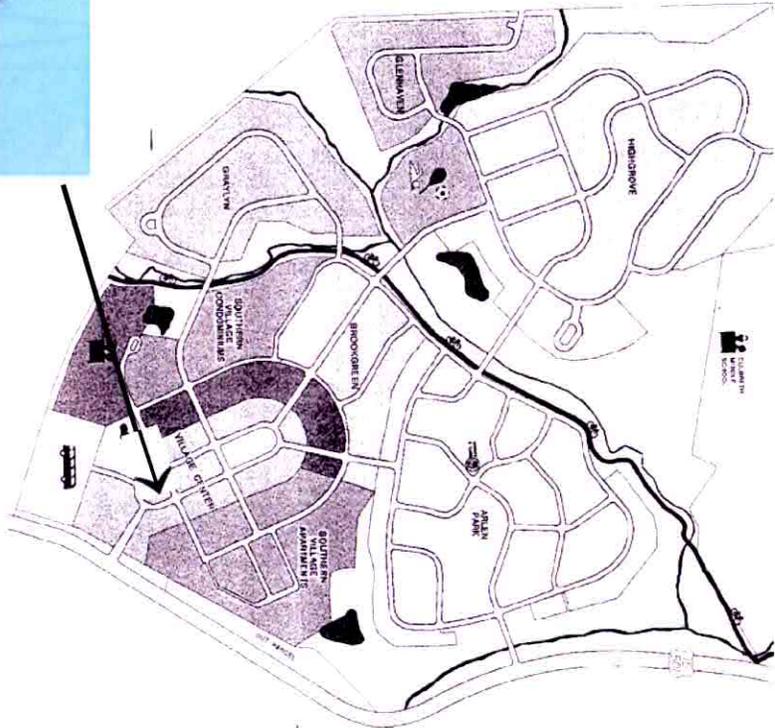


Source: Tabulations from the 1990 Nationwide Personal Transportation Survey (NPTS). Walking distances were estimated from reported travel times. Curves were smoothed to account for people's tendency to round off travel times.

Nearly all featured developments have placed their highest densities and senior housing around their town or village centers. With

shopping, family services, professional offices, and entertainment nearby, the centers can meet many of the daily needs of residents.

**“Step Down” Density Pattern
(Southern Village)**



**Apartments Along Main Street
(Miami Lakes)**



**Retirement Home Across the Street
from the Village Center
(Montgomery Village)**



**Small-lot Singles
in the Town Center
(Rancho Santa Margarita)**



BEST TRANSPORTATION PRACTICES

CROSS-CUTTING PRINCIPLES: DISPERSE AND CALM TRAFFIC; SUPPORT ALTERNATIVE MODES

- Practice 1: Design the street network with multiple connections and relatively direct routes.*
- Practice 2: Space through-streets no more than a half mile apart, or the equivalent route density in a curvilinear network.*
- Practice 3: Use traffic calming measures liberally.*
- Practice 4: Keep speeds on local streets down to 20 mph.*
- Practice 5: Keep speeds on arterials and collectors down to 35 mph (at least inside communities).*
- Practice 6: Keep all streets as narrow as possible, and never more than four travel lanes wide.*
- Practice 7: Align streets to give buildings energy-efficient orientations.*
- Practice 8: Avoid using traffic signals wherever possible and always space them for good traffic progression.*
- Practice 9: Provide networks for pedestrians and bicyclists as good as the network for motorists.*
- Practice 10: Provide pedestrians and bicyclists with shortcuts and alternatives to travel along high-volume streets.*
- Practice 11: Incorporate transit-oriented design features.*
- Practice 12: Establish travel demand management (TDM) programs at employment centers.*

In the design of new communities, the transportation system is often an afterthought. First, the master planner prepares a land plan and development program based on market opportunities and site constraints. Next, the master planner designs a conceptual street network to serve a largely set land plan and development program. Finally, a traffic engineer is brought in to fine tune the network and “make the traffic work.” This usually requires wide roads and even wider intersections.

The result, according to critics, is a transportation system that only an automobile could love. In these best practices, slow and steady is the goal, not fast, since high-speed traffic divides a community. Another goal is to preserve options to the automobile for those who might want or need to exercise them.

DISPERSE AND CALM TRAFFIC

Illustrative Practice: Design the street network with multiple connections and relatively direct routes.

The traditional urban grid has short blocks, straight streets, and a crosshatched pattern. The contemporary suburban street network has large blocks, curving streets, and a branching pattern.

Traditional grids disperse traffic rather than concentrating it at a handful of intersections. They encourage walking and biking with their

direct routing and their options to travel along high-volume streets. The most pedestrian-oriented cities in the world are those with the densest, web-like street networks.

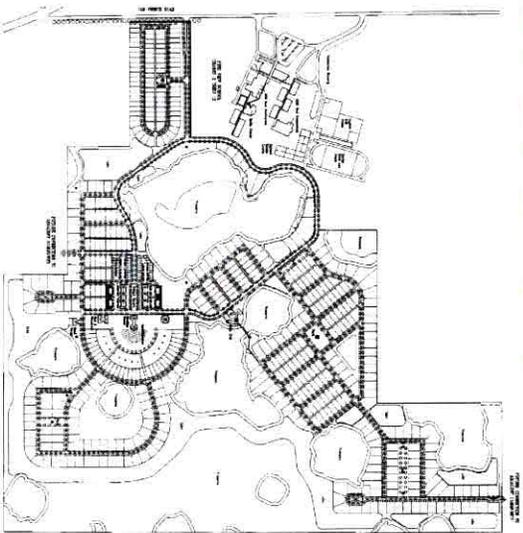
On the other hand, contemporary networks have some obvious advantages over grids. By keeping through-traffic out of neighborhoods, contemporary networks keep accident rates down and property values up. In addition, contemporary networks, with their curves and dead ends, can go around or stop short of valuable natural areas. Streets can run along ridges or run perpendicular to slopes, thereby minimizing cut-and-fill.

We would like the best of both worlds: the mobility of the traditional urban grid and the safety, security, and topographic sensitivity of

the contemporary suburban network. We can have it with *hybrid* networks. Short, curved stretches that follow the lay of the land or contribute to good urban design are okay. So are short loops and cul-de-sacs, as long as they leave the higher-order street network intact. By “higher-order street network” we mean arterials, collectors, and any subcollectors that carry through-traffic.

The street network at Rivendell, a quasi-traditional part of Palmer Ranch, is a hybrid. The ratio of street segments to segment ends is 1.4, a degree of network connectivity halfway between the extremes of the contemporary suburban network and the traditional urban grid. Southern Village comes in higher at 1.56, Miami Lakes a little lower at 1.38. Anything within this range is fine.

Hybrid Network at Rivendell (Palmer Ranch)

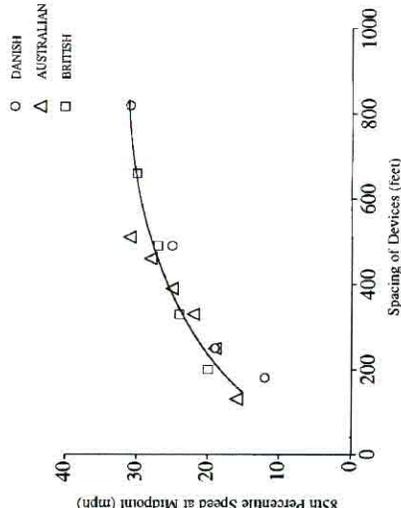


Illustrative Practice: Use traffic calming measures liberally.

The “livability” of streets declines as the volumes and speeds of traffic increase. Residents are more satisfied with the street environment when traffic volumes and speeds are low-to-moderate. They are more likely to walk, bike, and play along such streets. They feel safer. Controlling traffic volumes and speeds is also the key to pedestrian-oriented commercial streets.

The shorter the uninterrupted length of roadway, the slower the traffic will be. Short stretches ending in T-intersections are particu-

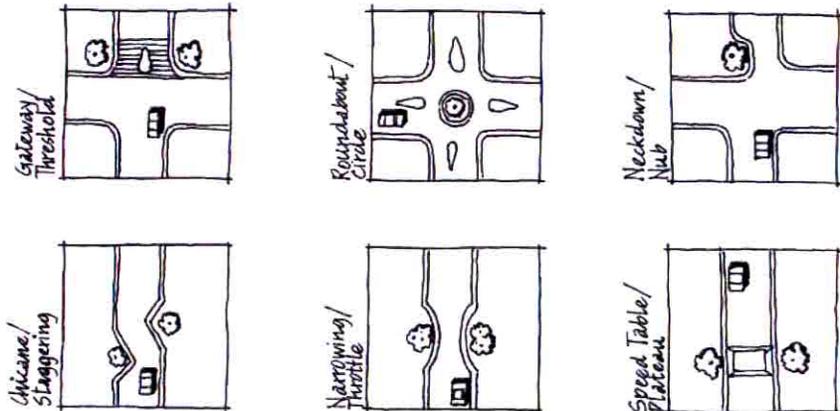
Midpoint Speed vs. Distance Between Traffic Calming Measures



Sources: Main Roads Department, *Guidelines for Local Area Traffic Management*, East Perth, Western Australia, 1990, Table 7.2; J. Noble and A. Smith, *Residential Roads and Footpaths - Layout Considerations*. Design Bulletin 32, Her Majesty's Stationary Office, London, 1992, pp. 24-26; and L. Herrstedt et al., *An Improved Traffic Environment - A Catalogue of Ideas*, Danish Road Directorate, Copenhagen, 1993, p. 59.

larly effective in reducing speeds and accidents. On longer stretches of roadway, it is still possible to calm traffic by dividing the length into shorter sections. Introduced at regular intervals, traffic calming measures or slow points operate on a simple principle: An abrupt change in either horizontal or vertical alignment causes drivers to naturally slow down. Just how much they slow down depends the type and spacing of measures.

Traffic Calming Measures



The Europeans and Australians are way ahead of us when it comes to traffic calming. They make every detail of the street and streetscape proclaim, “You are in a protected area—be careful!” The U.S. may not be ready for European woonerfs, angled single-lane slow points, and other more radical traffic calming measures. But we can certainly make greater use of short streets, zig-zag curves, traffic circles, textured pavements, and speed humps or, better still, raised crosswalks.

Miami Lakes uses angled on-street parking and flared sidewalks, narrow travel lanes, small building setbacks, brick crosswalks, and tree-lined streets to calm traffic in its town center. Its residential street network is designed around short segments and T-intersections, and curves have been inserted into its main thoroughfares for the sole purpose of slowing traffic.

Traffic Calmed Environment (Miami Lakes)



SUPPORT ALTERNATIVE MODES

Illustrative Practice: Provide networks for pedestrians and bicyclists as good as the network for motorists.

Residents of suburbia may walk or bike for fun within their individual subdivisions. They may walk for other purposes within activity centers reached by automobile. But most would not dream of using these modes for “utilitarian” trips, such as from home to work or home to shopping. And they are loathe to let younger children venture outside their immediate subdivisions on foot or bicycle. Destinations are just too far away, and facilities linking islands of activity are just too spotty.

If we expect people to walk or bike, we must provide networks for them as good as the network for motorists. This does not require exact parity between miles of roadway and miles of sidewalk. Rather it means that the same places must be reachable on foot or bike without risking life and limb.

Sidewalks are an absolute necessity along all through-streets serving developed areas. Pedestrian accidents are more likely on street sections without sidewalks than those with them. Sidewalk clearances, vertical curbs, street trees between street and sidewalk, and parked cars all add to the sense of security.

*Buffered Sidewalk Along a Collector
 (Haile Plantation)*



While not as essential on quiet residential streets, sidewalks are still usually warranted. In single-family developments, sidewalks, including the land occupied by the sidewalk itself and its planting strip, add about 2 percent to the hard costs of housing. For this modest expense, sidewalks extend the public realm beyond the street itself, encouraging neighborliness and street life.

*Sidewalk Extending the Public Realm
 (Celebration)*



Sidewalk guidelines published by the Federal Highway Administration (FHWA) have become widely accepted and endorsed here.

FHWA Sidewalk Guidelines

Arterials/Collectors	Both Sides
Local Streets	Both Sides
Commercial Areas	Both Sides
Residential Areas	Both Sides
More than 4 units per acre	Both Sides
1 to 4 units per acre	One Side
Less than 1 unit per acre	None

Source: R.L. Knoblauch et al., *Investigation of Exposure Based Pedestrian Accident Areas: Crosswalks, Sidewalks, Local Streets and Major Arterials*, Federal Highway Administration, Washington, D.C., 1988, p. 143.

*Sidewalk Extending the Public Realm
 (Southern Village)*



Internal pathway systems, if properly designed, can knit a community together in a way that sidewalks cannot. Paved pathways along the central spine of The Hammocks are as heavily utilized as any in the U.S. This is due to the extensive network of pathways (more than eight miles without a single street crossing). It is also due to the lake views; good connections to neighborhoods, schools, recreation centers, and shopping areas; and natural surveillance afforded by bordering homes and apartments.

Internal Pathway
 (The Hammocks)



Other high-amenity pathway networks crisscross Montgomery Village, Prairie Crossing, Rancho Santa Margarita, Regency, Village Homes, and The Woodlands. They are the most beloved and heavily utilized amenities of these particular communities.

Other High-Amenity Pathways
 (Prairie Crossing/Rancho Santa Margarita/Regency)



Striped bike lanes or extra-wide curb lanes are warranted on all community streets carrying heavy traffic volumes. Bikeway guidelines published by the Federal Highway Administration (FHWA) are endorsed here. Rancho Santa Margarita has separate bike lanes on all arterials and some collectors, plus bike racks everywhere, making it the most bicycle-friendly large community featured.

Bike Lane
 (Rancho Santa Margarita)



FHWA Bikeway Guidelines

Up to 10,000 vehicles per day	14' curb lane
Less than 30 mph	5' bike lane
30 to 40 mph	
10,000 or more vehicles per day	5' bike lane

Source: Adapted from W.C. Wilkinson et al., *Selecting Roadway Design Treatments to Accommodate Bicycles*, Federal Highway Administration, Washington, DC, 1994, p. 19.

Illustrative Practice: Incorporate transit-oriented design features.

Transit operations have not proven wildly successful in new communities around the United States. Thus, rather than endorsing some particular transit service option, or calling for some form of developer subsidy, we suggest that communities be designed to support transit service when regional transit agencies are ready to provide it. If that day may never arrive, due to a site's remote location or low-density context, a large-scale development probably should not be approved in the first place.

About 50 transit-oriented development (TOD) manuals are now available across North America. Generalizing across the manuals, there is agreement that, at a minimum, medium densities are required to support transit service; a mixture of residential, commercial, and institutional uses is preferable to any single use alone. Grid-like street networks are superior to discontinuous, curvilinear networks; collectors should be closely spaced and should penetrate residential areas and activity centers.

All TOD manuals call for sidewalks along transit routes, on streets leading to transit routes, and radiating out from transit stops to nearby buildings. Some call for midblock crosswalks, cul-de-sac pass-throughs, diagonal walkways through parking lots, and other pedestrian shortcuts to make access to transit more direct.

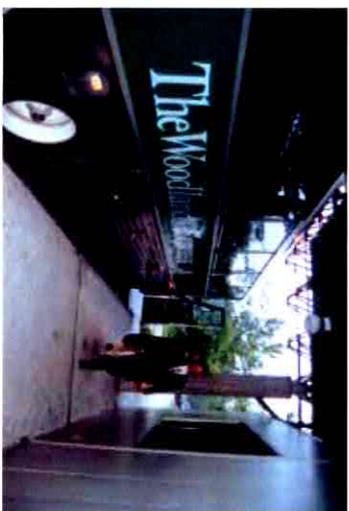
Of the featured developments, the most transit-oriented, as of today, is Montgomery Village. Its transit market share—12 percent of work trips—may be the highest of any new community in the U.S. Transit service penetrates the village, ending in the village center. Net residential densities are high, and transit trip generators are concentrated in and around the village center. Several stops have bus shelters and benches, and are overlooked by housing for a measure of security. During peak hours, buses provide express service to a Washington Metro rail station.

**Transit Stop
in the Village Center
(Montgomery Village)**



While not yet served by public transit, The Woodlands has a park-and-ride lot and 19 express buses serving Houston employment centers. The buses have easy access to separate high-occupancy vehicle (HOV) lanes running into Houston. About 1,200 commuters use the service each weekday.

**Express Buses to Houston
(The Woodlands)**



At Prairie Crossing, a high-density TOD is slated for the southwest corner of the site, across the road from a commuter rail station bearing the community's name. At Southern Village, a park-and-ride lot is already operating next to the village center; bus service will eventually loop through the community on its way to the park-and-ride lot.

**Commuter Rail Station
(Prairie Crossing)**



BEST ENVIRONMENTAL PRACTICES

CROSS-CUTTING PRINCIPLES: PRESERVE ENTIRE ECOSYSTEMS; MIMIC NATURE

- Practice 1: Use a systems approach to environmental planning.*
- Practice 2: Channel development into areas that are already disturbed.*
- Practice 3: Preserve patches of high-quality habitat, as large and circular as possible, feathered at the edges, and connected by wildlife corridors.*
- Practice 4: Design around significant wetlands.*
- Practice 5: Establish upland buffers around all retained wetlands and natural water bodies.*
- Practice 6: Preserve significant uplands, too.*
- Practice 7: Restore and enhance ecological functions damaged by prior site activities.*
- Practice 8: Minimize runoff by clustering development on the least porous soils and using infiltration devices and permeable pavements.*
- Practice 9: Detain runoff with open, natural drainage systems.*
- Practice 10: Design man-made lakes and stormwater ponds for maximum environmental value.*
- Practice 11: Use reclaimed water and integrated pest management on large landscaped areas.*
- Practice 12: Use and require the use of Xeriscape™ landscaping.*

By designing with nature, developers can help themselves at the same time they further the goals of *habitat protection, stormwater management, water conservation, and aquifer protection*. Ways of furthering another environmental goal—air quality—were discussed previously under best land use and transportation practices.

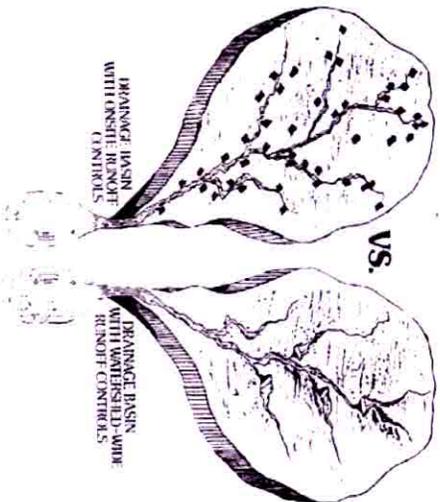
Natural amenities—woodlands, hedge-rows, slopes, rock outcroppings, and water bodies—cost nothing in their pure state and are beloved by residents. Wild places (natural areas with nothing done to them at all) are a particular favorite with children. Greenbelts and other open spaces, if designed for physical and visual access, can enhance property values of nearby developable lands.

PRESERVE ENTIRE ECOSYSTEMS

Illustrative Practice: Use a systems approach to environmental planning.

Planning and regulatory emphasis is shifting from the individual development site to the basin or ecosystem. The shift is prompted by the realization that functional systems are the appropriate units of environmental analysis and management. Wildlife must be managed as a “community” of interrelated species; actions that affect one species affect others. Stormwater is best managed on a watershed basis to coordinate the timing of stormwater releases and achieve economies of scale. And so it goes.

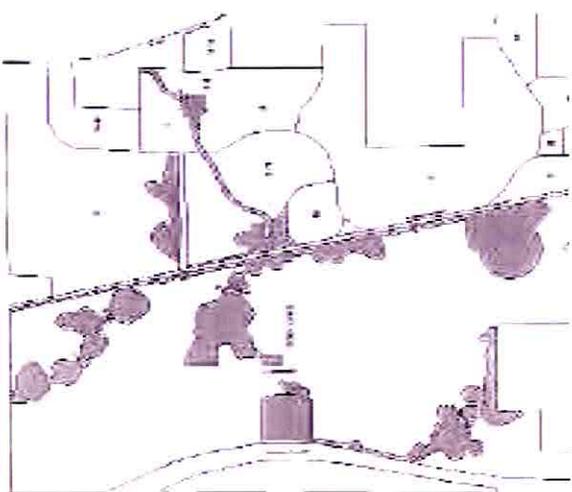
Two Approaches to Stormwater Management



Source: J.P. Harrison, “Watershed-Wide Approach Significantly Reduces Local Stormwater Management Costs,” *Public Works*, Dec. 1983, pp. 34-37.

On the west side of Palmer Ranch, environmental issues were addressed on a project-by-project basis within the framework of a general master plan. When it came time to develop the east side, the developer and regulatory agencies agreed that environmental resources could be better protected if planning were system-wide. Palmer Ranch’s surface water management plan for the east side considers the entire South Creek watershed. The open space plan emphasizes connections to off-site habitat and preservation of corridors rather than isolated patches. Comparing the extent of wetlands and uplands preserved on the two sides, the systems approach seems to have preserved connections better than the piecemeal approach.

Open Spaces Preserved with Piecemeal vs. Basin-wide Planning (Palmer Ranch)



Illustrative Practice: Preserve patches of high-quality habitat, as large and circular as possible, feathered at the edges, and connected by wildlife corridors.

A debate once raged among biologists over the value of a single large preserve versus numerous small preserves of equal total area. The controversy was put to rest when leading biologists from opposing sides finally agreed that “bigness” and “multiplicity” are both essential for regional biodiversity.

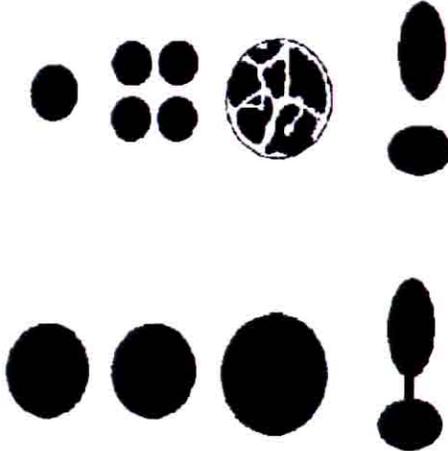
A mosaic of smaller preserves or patches can be pieced together with the help of land developers. Patches preserved in an urbanizing landscape should be as large as possible. In general, the bigger the patch, the more species will colonize it. More important, most species at risk require good-sized patches or specialized habitat or both. Given the right kind of habitat, patches of 15 to 75 acres have been found to support many interior bird species, a host of smaller mammals, and most reptiles and amphibians.

Where land is limited, patches should be as nearly circular as possible to minimize edge effects. Edges invite competition from generalist species, predation, and human disturbance. The edges themselves should be “feathered” wherever possible; predation rates are lower where edges are gradual and undulating rather than hard and straight.

Wildlife corridors should be preserved to serve as “land bridges” between “habitat islands.” The young need some way to disperse to avoid competition with their parents and inbreeding among themselves, and entire populations may have to temporarily evacuate patches in the face of flooding, fire, etc. Natural landscape connections between patches are preferred to man-made connections along hedgerows, drainage ditches, or railroads. Riparian strips along rivers and streams are the most valuable of all corridors, used by nearly 70 percent of all vertebrate species in some significant way during their life cycles.

Habitat Planning Guidelines

Better

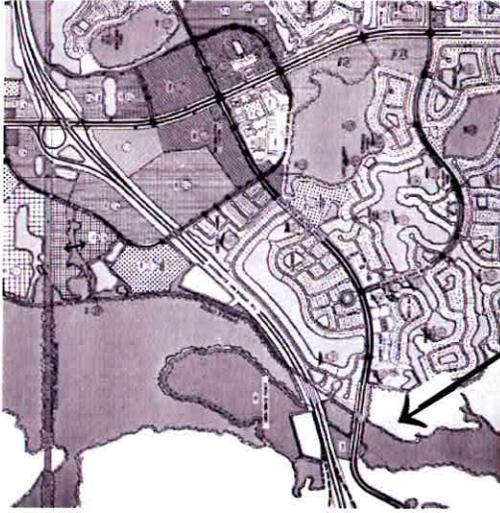


Worse

Source: Adapted from J. M. Diamond, “The Island Dilemma: Lessons of Modern Biogeographic Studies for the Design of Natural Reserves,” *Biological Conservation*, Vol. 7, 1975, pp. 129-146; and M. E. Soule, “Land Use Planning and Wildlife Maintenance—Guidelines for Conserving Wildlife in an Urban Landscape,” *Journal of the American Planning Association*, Vol. 57, 1991, pp. 313-323.

Hunter’s Creek has the Shingle Creek corridor of wetlands and upland buffers traversing its western side. Rancho Santa Margarita has Arroyo Trabuco and Tijeras Creek, plus associated slopes, bluffs, and ridges, running its length. The Woodlands has three natural stream corridors, enhanced by created wetlands in their floodplains.

Conservation Area Along West Side (Hunter’s Creek)



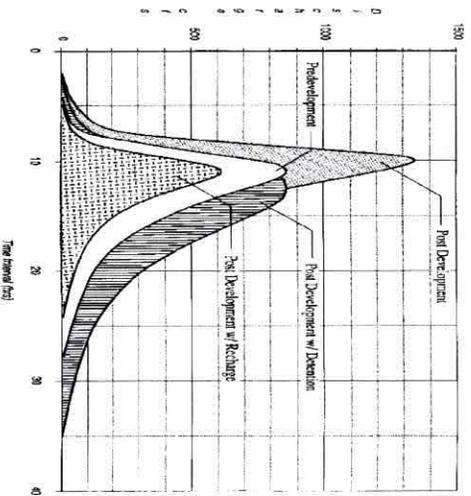
MIMIC NATURE

Illustrative Practice: Minimize runoff by clustering development on the least porous soils and using infiltration devices and permeable pavements.

When land is developed, a large volume of stormwater that once seeped into the ground or nourished vegetation is deflected by rooftops, roads, parking lots, and other impervious surfaces; it ends up as runoff, picking up urban pollutants as it goes. This change in hydrology creates four related problems. *Peak discharges, pollutant loads, and volumes of runoff* leaving a site all increase, as compared to pre-development levels. By reducing groundwater recharge, land development also reduces *base flows* in nearby rivers and streams.

To mitigate the adverse impacts of development, there are two options: *stormwater infiltration and stormwater detention*. With infiltration, stormwater is retained on-site in basins, trenches, or recharge beds under pavements, allowing it to infiltrate into the ground. With detention, stormwater runoff is slowed via swales, ponds, or wetlands, but ultimately discharged from the site. Experts are beginning to favor infiltration as the only complete approach to stormwater management. Where soils and water table elevations permit, infiltration can maintain the water balance in a basin and

Runoff Before and After Development (with different approaches to mitigation)



Source: Cahill Associates, *Stormwater Management Systems-Porous Pavement System with Underground Recharge Beds-Engineering Design Report*, West Chester, Pa., 1993, p. 20.

mitigate all four adverse stormwater-related impacts of development.

Infiltration can be maximized by clustering development on the least porous soils. In this way soils that allowed infiltration prior to development continue to allow it, while soils that were impervious to begin with remain so, though now covered with buildings and pavement.

Infiltration rates can be further boosted by means of infiltration basins, infiltration

trenches, swales with check dams, and/or permeable pavements. Village Homes, was master planned in this manner and managed to avoid flooding when neighboring subdivisions were awash. Using natural drainage rather than storm drains also saved \$800 per house (in 1975 dollars).

Natural Drainage System (Village Homes)

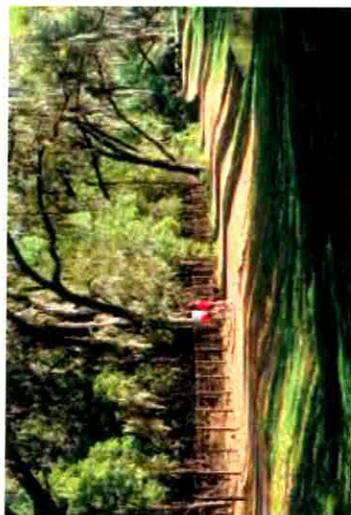


Prairie Crossing is using a stormwater “treatment train” of vegetated swales, created prairies, created wetlands, and a stormwater lake to reduce runoff volumes by a projected 65 percent and pollutant loads by even more (relative to conventional development). The swales and prairie lands clean and infiltrate runoff, while the wetlands and lake polish the outfall.

*Prairie-Wetland-Lake Combination
 (Prairie Crossing)*



*Other Infiltration Measures
 (Haile Plantation/Bluewater Bay/
 Miami Lakes)*



Other featured communities using infiltration include: Haile Plantation (large infiltration basins), Bluewater Bay (small infiltration basins), Miami Lakes (infiltration trenches and turf pavers), and The Woodlands (porous asphalt).

Illustrative Practice: Use and require the use of Xeriscape™ landscaping.

While the term Xeriscape may conjure up images of cactus-and-rock gardens in desert regions, it actually refers to any landscape treatment that conserves water by following common-sense principles:

- Design to minimize maintenance.
- Analyze and improve soil conditions.
- Use locally-adapted plants.
- Irrigate efficiently.
- Use turf only where it is needed.
- Use mulches to retain soil moisture.
- Maintain landscapes properly.

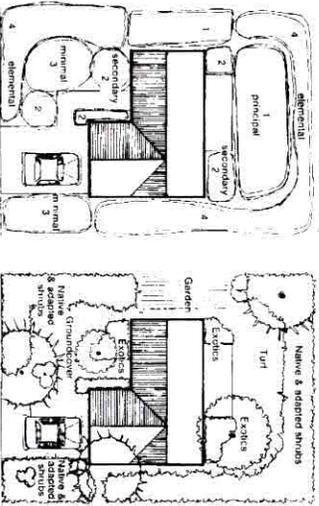
Xeriscape landscaping can cut water use in master planned developments by 50-60 percent; fertilizer use and landscape maintenance are reduced by like amounts. By one estimate, a homeowner can recoup the higher initial cost of a water-conserving landscape in three years through savings on irrigation and maintenance.

With Xeriscape landscaping, plants are chosen for their adaptability to local conditions. Native plants are well-adapted (being “native,” after all). Many require little or no irrigation, fertilizers, pesticides, or herbicides.

Turf is used only where it serves a specific purpose, such as erosion control or recreation, rather than as fill-in material between other landscape elements. One visual preference survey found that lawns with up to 50 percent native groundcover are perceived as more attractive and less work (as well as much more “natural”) than are conventional turf lawns.

Plants with similar irrigation requirements are grouped together into water use zones (so-called hydrozones). Irrigation systems can then be tailored to different zones rather than operating uniformly. It is recommended that high water use zones (consisting of turfgrasses and plants that require supplemental watering year-round) be limited to 50 percent of total landscaped area, and that drip or bubbler irrigation be used on trees, shrubs, and ornamentals.

*Four Hydrozone Plan
 for a Single-Family Home*



Source: R.L. Thayer and T. Richman, “Water-Conserving Landscape Design,” in E.G. McPherson (ed.), *Energy-Conserving Landscape Design*, American Society of Landscape Architects, Washington, DC, 1984, pp. 185-213.

By deed restriction, forest removal is limited at The Woodlands and reforestation of disturbed areas is required. Wildflowers are planted in the parkway medians and along the pathways. At annual Arbor Day, 40,000 native seedling trees are distributed free to residents.

*Xeriscape Landscaping
 (The Woodlands)*



*A Resident's Guide to Landscaping
 (The Woodlands)*



A RESIDENT'S GUIDE
 TO LANDSCAPING
 IN THE WOODLANDS



Other developments featuring native landscaping include Haile Plantation, Prairie Crossing, and Village Homes. Even some of the most manicured developments are beginning to experiment with native plantings. Expect to see more of the same as other developers discover that a palette of native and adapted plants is more economical and visually pleasing than is endless turfgrass.

BEST HOUSING PRACTICES

CROSS-CUTTING PRINCIPLES: MIX HOUSING TYPES; CUT HOUSING COSTS

- Practice 1: Offer “life cycle” housing.*
- Practice 2: Achieve an average net residential density of six to seven units per acre (without the appearance of crowding).*
- Practice 3: Use cost-effective site development and construction practices.*
- Practice 4: Design in energy-saving features.*
- Practice 5: Supply affordable single-family homes for moderate-income households.*
- Practice 6: Supply affordable multifamily and accessory housing for low-income households.*
- Practice 7: Tap government housing programs to broaden and deepen the housing/income mix.*
- Practice 8: Mix housing to the extent the market will bear.*

These practices are designed to increase the affordability and diversity of the housing stock. Affordability is promoted for everyone, but particularly those with moderate, low, and very low incomes; for them, documented housing shortages exist.

Diversity of the housing stock is sought so people can “age in place” rather than moving at each stage in the life cycle...also, because diversity breeds vitality in all systems, natural and manmade. Earlier best practices promoted diversity in other areas, specifically, in ecosystems (biodiversity), transportation systems, and land use patterns.

MIX HOUSING TYPES

Illustrative Practice: Offer “life cycle” housing.

Suburbia segregates people at different stages in life by segregating housing by type, size, and price range. Large complexes of studio and one-bedroom apartments, large subdivisions of three- and four-bedroom homes, and large condominium projects guarantee that young singles, young families, and empty nesters will have minimal contact.

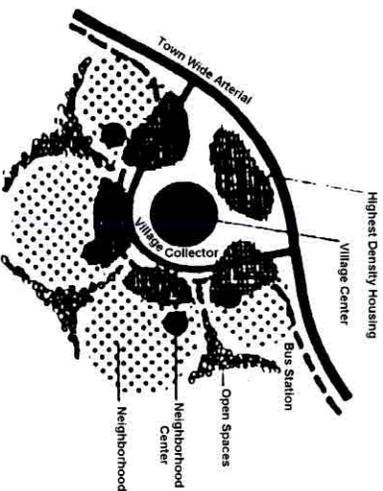
Suburbia offers little opportunity to put down roots; neither the homes nor the neighborhoods are equipped to see families through the life cycle. When families move up (or down), they move out.

24

This is in contrast to traditional towns, where a mix of housing led to a mix of people. The generations were mixed to the point of “granny flats” or “teenager cottages” behind family homes. It is also in contrast to new communities of the 1960s, an idealistic time when the idea of *three generational* or life cycle housing took hold at Columbia, MD and Reston, VA. Senior, multifamily, and single-family housing were all sited within the same villages and sometimes even within the same neighborhoods.

With life cycle housing available, social networks can remain intact after moves; children need not be uprooted from familiar schools; and elderly persons can remain near friends and families.

Mixed Housing within Villages and Neighborhoods of Columbia, MD



Source: M. Hoppenfeld, “The Columbia Process: The Potential for New Towns” *The Architects Yearbook*, Garden City Press Limited, Letchworth, England, 1972.

In addition, life cycle housing makes good business sense. For large developers, the key to profitability is rapid land absorption, and the key to rapid land absorption is to tap many market segments. “Life cycle” housing creates its own demand, as renters feed the starter home market, families in starter homes buy move-up homes, and so forth. One quarter of all new home buyers in The Woodlands are moving within the community. The move-up market can provide as many as half of all new home buyers.

Regency has everything from one-bedroom apartments to a 28,000-square foot mansion, all on a site of less than 400 acres. Only seven

Apartments to Mansions in a Small Community (Regency)



years after opening, Oakbridge could boast an enviable mix of product types, including congregate care. Where no independent builder was interested in supplying a given product, these developers built it themselves using in-house builders or general contractors.

*Zero-Lot Line Homes
 to Congregate Care
 (Oakbridge)*



*Illustrative Practice: Mix housing to the
 extent the market will bear.*

There are differing opinions about the extent to which housing for different socioeconomic groups can and should be mixed within neighborhoods. There are some who argue for maximum economic integration in the interest of social justice. Others advocate neighborhood homogeneity in the interest of social compatibility or crime prevention.

We come down in the middle, heeding the words of renowned urban sociologist Herbert Gans. Small clusters of housing, similar in type and price, can be placed next to other small clusters, themselves similar but different from other clusters in the same neighborhood. To promote social interaction, it is only necessary to have common areas and common facilities.

Mixed-income projects can be good for large developers because several market segments are tapped at once, yet infrastructure need be extended to only a small area at a time. The Hammocks mixes housing within the same subdivisions, with a high degree of market acceptance. Celebration follows this practice to an even greater degree, mixing three or four housing types around common areas.

*Mixed Housing Around
 Common Recreational Facilities
 (The Hammocks)*



*Townhouses Next to
Estate Homes
(Celebration)*



Nowhere is the need for mixing greater than with low-income housing. The failure to mix incomes may stigmatize certain areas, that is, make them into ghettos. Or worse, it may generate so much public opposition that low-income housing never gets built.

There is a growing sense that mixed-income housing is healthier for low-income households and no problem for their higher-income neighbors, this suggested by low vacancy rates among market-rate units in mixed-income projects. Since many federal, state, and local housing programs now promote the mixing of below-market and market-rate units, exemplary developers will find it financially beneficial to follow this best practice.

*Below-Market and Market-Rate
Townhouses Comfortably Co-existing
(Montgomery Village)*



*Federally Subsidized (Section 8)
and Market-Rate Apartments 100%
Occupied (The Woodlands)*

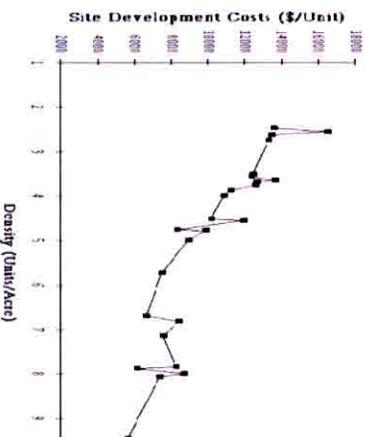


CUT HOUSING COSTS

Illustrative Practice: Achieve an average net residential density of six to seven units per acre (without the appearance of crowding).

The harsh reality of housing is that density is necessary for affordability. Higher densities mean less land per unit, less site preparation, less infrastructure, and typically less floor and wall area, all of which hold down the hard costs of housing. It is a “harsh” reality because the mere mention of density sends shivers down the spines of suburban residents and their elected officials.

***Falling Site Development Costs
with Rising Density***



Source: National Association of Home Builders, *Cost Effective Site Planning—Single Family Development*, Washington, DC, 1986, p. 56-97. Reprinted with permission from Home Builders Press, National Association of Home Builders, 1201 15th St., NW, Washington, DC 20005; 800-223-2665.

In this regard, density has gotten a bum rap. People confuse density with crowding, high density with high rise, and perceived density with measured density. We know, for example, that densities are perceived to be lower where there is open space nearby. Even a small commons provides a feeling of spaciousness. Other urban design elements that create the perception of spaciousness include small housing clusters, short blocks, low building heights, and natural landscaping.

Perceived Density < Actual Density of 7.7 Units/Net Acre (Village Homes)



Individual floor plans and lot layouts also affect perceived densities and acceptance in the marketplace. ULI and NAHB have published entire volumes filled with examples of dense housing that affords privacy, quiet, outdoor space, and interior light and airiness.

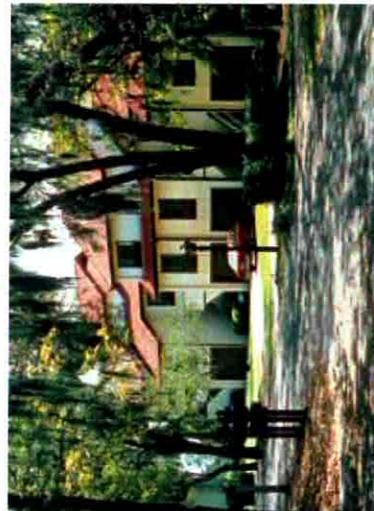
Monotony can be avoided at higher densities through what ULI has called “density by design.” Zero lot line homes can be staggered

or zigzagged, and setbacks and garage locations can be varied. Duplexes and triplexes can have entrances separated from one another and oriented, alternately, toward the street and side yards; this, plus landscaping to break up building masses, make attached homes fit nicely into detached home neighborhoods. Quadplexes and townhouses can have varying ceiling heights, roof lines, setbacks, and colors; units can be placed side-by-side, back-to-back, or over-under for, once again, variety. Examples of “density by design” can be found in all exemplary developments.

Duplex (Palmer Ranch)



Townhouses (Bluewater Bay)



How dense is dense enough? How dense is too dense? From surveys, residents are as satisfied with housing at six or seven units per acre as they are at three or four units per acre. Average net residential densities within this range make a nice target for suburban developers. Six of the featured developers exceed this target, and four more come close.

The highest net density, about 12 units per acre, is achieved at Rancho Santa Margarita. Density is a means to an end, affordability, and affordability is a means to an end, high land absorption rates. Two-thirds of all units sold have qualified as affordable in the pricey Southern California market. The community has averaged 720 home sales per year over 10 years of development (including a six-year California recession). Residential buildout will be reached six years earlier than expected.

Density without Crowding (Rancho Santa Margarita)



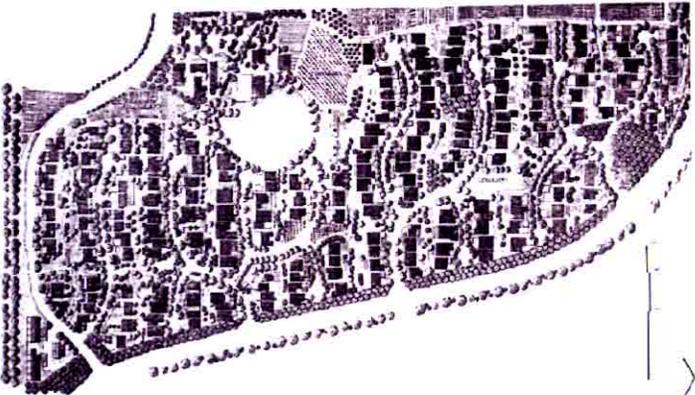
Illustrative Practice: Design in Energy-Saving Features.

This best housing practice goes hand-in-hand with a best transportation practice: aligning streets for optimum building orientation vis-a-vis the sun and prevailing winds. Ordinarily this means that the buildings' long windowed sides face within a few degrees of true south, so occupants benefit from solar heating in the winter when the sun is low in the sky, and natural shading in the summer when the sun is high. Village Homes manages to achieve a dominant north-south building orientation and corresponding energy savings within a curvilinear street network; it does so by means of staggered lots and houses. Space heating demands are reduced by about half with passive solar architecture.

Beyond building orientation, precision landscaping and energy-efficient construction practices can dramatically reduce heating and cooling costs, thereby making housing that much more affordable for owners and renters. Deciduous trees should be preserved and/or planted to block the summer sun. Trees are also helpful for humidity control and as a windbreak in extreme weather. And they are one of the best investments for home appreciation.

Where trees leave off, shrubs can block hot and cold breezes that would otherwise infiltrate windows. These same shrubs can be pruned in the spring and fall to maximize natural ventilation. The combination of optimal solar

North-South Orientation in a Curvilinear Network (Village Homes)



Passive Solar House (Village Homes)



orientation, precision landscaping, and energy-efficient construction allows Village Homes to do without air conditioning units, saving on equipment as well energy costs.

Along with Village Homes, one other development has been sensitive to solar orientation and landscaping issues. At Haile Plantation, tree clearing is usually limited to the front of lots; even in front, mature trees are preserved. Many houses have porches for shading and wide-shallow designs for cross-ventilation. Some are placed at an angle to the street for optimal solar orientation.

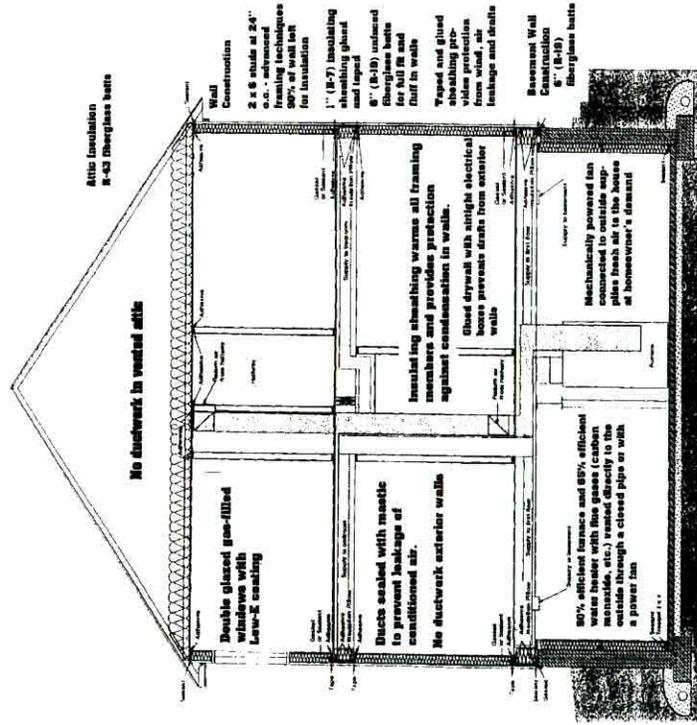
Tree Preservation and Southern Exposure (Haile Plantation)



With respect to construction practices, the list of energy-saving features is too long to be reviewed here. Many practices both save energy and cut the cost of home construction. Many others have extremely short payback periods. Guidance is available from the Florida Solar Energy Center's *Energy-Efficient Florida Home Building*, the National Association of Home Builders' *Energy-Smart Building for Increased Quality, Comfort, and Sales*, and the U.S. Department of Energy's Building America Initiative.

Prairie Crossing is the first large-scale demonstration project under the Building America Initiative. Standard specifications for every new house include: framing with 2x6 studs at 24" spacing (rather than 2x4s at 16" spacing) to increase space for thermal insulation without increasing lumber costs; extensive sealing, caulking, and gasketing to make the house virtually airtight; heat ducts within the building interior instead of the outside walls or attic to reduce heat loss;

*Energy-Efficient Home Building
 (Prairie Crossing)*



double-glazed, gas-filled windows; and a fan to bring fresh air into the house when needed. These features cut heating and cooling costs by almost half, while adding only \$2,300 to the cost of a home (factoring in the smaller heating and cooling systems that will suffice). The added expense is recouped in just 4 years, after which the homeowner is ahead.

*Aerated Concrete Block House
 (Bluewater Bay)*



Bluewater Bay is the first U.S. community to offer aerated concrete block houses. Aerated concrete blocks have millions of tiny air pockets that make them light, easy to cut, well-insulating, and unaffected by sudden changes in temperature. They reduce by about half the time air conditioning is required in Bluewater Bay's warm and humid climate. This is just one more example of a pattern evident throughout this primer—what distinguishes featured developers from many others is not any particular practice or practices but a willingness to adapt and innovate.

Notes

¹ Governor’s Task Force on Urban Growth Patterns, *Final Report*, Florida Department of Community Affairs, Tallahassee, 1989; Center for Urban Policy Research (CUPR), *Impact Assessment of the New Jersey Interim State Development Plan*, New Jersey Office of State Planning, Trenton NJ, 1992; New Jersey State Planning Commission, *Communities of Place—The New Jersey State Development and Redevelopment Plan*, Trenton NJ, 1992; W. Fulton, *Beyond Sprawl: New Patterns of Growth to Fit the New California*, Bank of America, San Francisco CA, 1995; and R. Roth, *Redevelopment for Livable Communities*, Washington State Energy Office, Olympia WA, 1996.

² R. Ewing, “Is Los Angeles-Style Sprawl Desirable?” *Journal of the American Planning Association*, Vol. 63, 1997, pp. 107-126.

³ Urban Land Institute, *New Approaches to Residential Land Development*, Technical Bulletin No. 40, Washington DC, 1961; Urban Land Institute, *Innovations vs. Traditions in Community Development*, Technical Bulletin No. 47, Washington DC, 1963; R. Witherspoon, J.P. Abbott, and R.M. Gladstone, *Mixed-Use Developments: New Ways of Land Use*, Urban Land Institute, Washington DC, 1976; D. Priest et al., *Large-Scale Development—Benefits, Constraints, and State and Local Policy Incentives*, Urban Land Institute, Washington DC, 1977; Council on Development Choices for the 80s, *The Affordable Community: Adapting Today’s*

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⁴ Ewing, *op cit.*, 1996.

⁵ Ewing, *op cit.*, 1996, pp. 5-6.

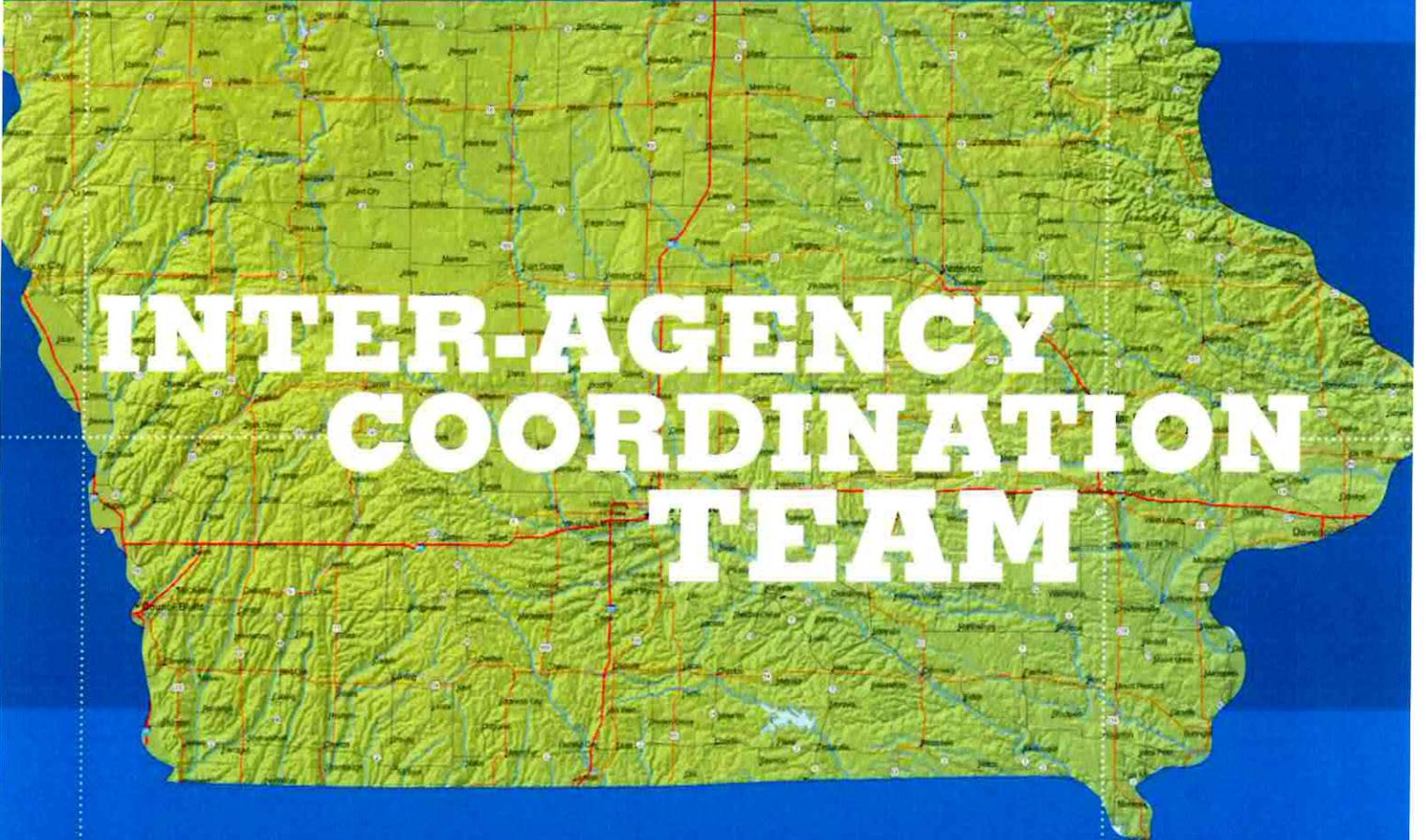
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**JULY 18, 2008
MEETING SUMMARY**



FEMA

ESF #14
LONG-TERM COMMUNITY RECOVERY

IOWA DR-1763

INTER-AGENCY COORDINATION TEAM MEETING SUMMARY

ESF #14
LONG-TERM COMMUNITY RECOVERY

JULY 18, 2008

TEAM MISSION

The Inter-Agency Coordination Team (IACT) for Long-Term Community Recovery (LTCR) is created to encourage and facilitate collaboration among State, private sector, other non-governmental organizations (NGOs) and Federal partners assisting in Iowa's recovery efforts on behalf of its flood and tornado disaster-impacted communities. Using IACT as a convening and coordinating tool, participating partners are provided opportunities to establish key contacts, build strong relationships and coordinate critical recovery efforts with and among the numerous State and Federal agencies and outside organizations committed to the disaster recovery process.

Updates on activities and identification and discussion of critical issues that might impact recovery are shared with an emphasis on an integrated long-term recovery process that will leave a lasting and positive effect on the communities affected by this disaster and served by IACT participants. LT. Governor Patty Judge is co-convenor of the IACT.

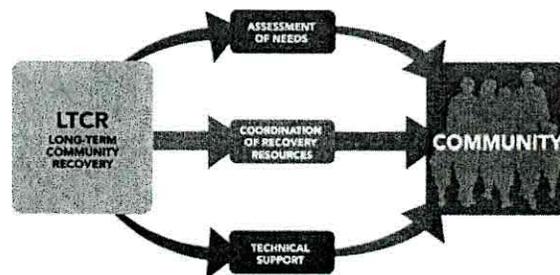
TEAM PURPOSE

William Vogel, FEMA Federal Coordinating Officer, and Patrick Hall, State Coordinating Officer, called to order the first Iowa ESF #14 Long-Term Community Recovery (LTCR) Inter-Agency Coordination meeting on June 27, 2008. The meeting set the stage for a collaborative, holistic approach to the long-term recovery of disaster stricken communities in Iowa. Patrick Dillon, Governor Chet Culvert's Chief of Staff, announced the formation of the Rebuild Iowa Advisory Council (RIAC), chaired by Adjutant General Ron Dardis.

Steve Castaner, ESF #14 LTCR Branch Director gave an overview of the program and emphasized the need to develop relationships in a post-disaster environment that cross-cut typical program applications. Only by working together can we provide the best service for recovery to the citizens of Iowa. The application of programs in their typical fashion is no longer meeting the needs of communities recovering from disasters like the Iowa tornadoes and floods. The formation of the Inter-Agency Coordination Team (IACT) is a strong message that the recovery in Iowa is not business as usual.

Consensus was reached that it is critical to continue meeting on a regular basis. It was agreed that every two (2) weeks should be the initial meeting schedule.

Each participating agency is asked to continue to update its section regarding how it is engaged in the disaster, what resources are available to the recovery effort and what critical issues are developing. The following document functions as a summary of the reports made at the meeting and the resources available to assist with Iowa recovery.



The following summary identifies significant priorities for Inter-Agency Coordination Team leadership and forward immediate actions.

LT. GOVERNOR PATTY JUDGE

- Rebuilding Iowa is a team effort with Federal partners, community leaders, Rebuild Iowa Commission (RIAC), Rebuild Iowa Office (RIO) and the Inter-Agency Coordination Team (IACT), with additional funding and support from the public and private sectors and corporations across the country.
- It is important to safeguard the IACT partnership.
- Coordination and accuracy of information is critical to a positive recovery process.
- State's priority for the use of Hazard Mitigation Grant Program (HMGP) funding is for primary residences.
- Oakville is a top issue.
- Levee work is critical and integral to a successful recovery and extends beyond U.S. Army Corps of Engineers (USACE), to all floodplain management.

FORWARD ACTION/RESPONSIBILITIES

- Floodplain Management Task Force will research National Flood Insurance Program (NFIP) non-participating and sanctioned communities.
- IACT will assist Federal Agencies in identifying and resolving issues that allow expedited procedures.
- Will look to State representatives to assist in the overall floodplain management issue.
- Will stand up a rapid response capability to respond to and clarify incomplete or misinformed media reports.

ADJUTANT GENERAL RON DARDIS, CHAIRMAN, REBUILD IOWA ADVISORY COMMITTEE (RIAC)

- The tour of 33 cities with Governor Culvert provided a focus to the recovery mission and brought visibility to the balance of destruction and the energy of community spirit.

FORWARD ACTION/RESPONSIBILITIES

- Will take information and provide recommendations to Governor Culvert.
- RIO will serve as the central Point of Contact (POC) for Iowa.
- Will lead Task Force members in the coordination of options available through National Resources Conservation Service (NRCS) and the Oakville population.

DAVE MILLER, HSEMD ADMINISTRATOR, IOWA DEPARTMENT OF HOMELAND SECURITY (Iowa DHS)

- HMGP 404 priorities will be acquisition of homes in a floodway, followed by homes in the 100-year floodplain with repetitive loss histories.
- Flood maps are a concern: may no longer be accurate.

FORWARD ACTION/RESPONSIBILITIES

- Will devise a plan to address non-participating or sanctioned communities in NFIP.

PATRICK HALL, STATE COORDINATING OFFICER (SCO)

- Rebuilding with a mitigation focus must be in recovery plan forefront.
- Effective coordination with FEMA, USACE, the RIO and RIAC is essential to recovery.
- Landfill space availability is an issue as debris removal continues.

FORWARD ACTION/RESPONSIBILITIES

- FEMA has mission-assigned USACE to provide debris removal technical assistance and is encouraging local contracting to assist with debris removal.

WILLIAM VOGEL, FEDERAL COORDINATION OFFICER (FCO)

- Federal response to disaster expansion from one (1) to 88 counties was quick.

FORWARD ACTION/RESPONSIBILITIES

- Coordination, management and oversight of the Federal recovery response.



**REBUILD IOWA
OFFICE – LONG
TERM RECOVERY
TASK FORCE**



**IOWA
DEPARTMENT OF
AGRICULTURE**

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Coordinator

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POTENTIAL LONG-TERM CRITICAL ISSUES

- Building a better, stronger and more resilient Iowa.

JULY 18, 2008 MEETING SUMMARY

- Support the endeavors of the State of Iowa and its constituents as they rebuild.

POTENTIAL RESOURCES TO SUPPORT LONG-TERM RECOVERY

- Manpower, technical assistance and networking opportunities.

NOTES

POTENTIAL LONG-TERM CRITICAL ISSUES

- Conservation practices.
- Emphasis on mitigation that moves to reduce or eliminate future damage, with particular attention to the Environmental Quality Improvement Program.

JULY 18, 2008 MEETING SUMMARY

- Oversee programs for producers, including low interest loans.
- Provide management responsibilities for new Farm Disaster Program where producers in declared counties have 90 days from declaration (August 5-12) to apply.

POTENTIAL RESOURCES TO SUPPORT LONG-TERM RECOVERY

NOTES

- Iowa has an inventory of 10,000 vacant apartments for the displaced.



**IOWA DEPARTMENT
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Director

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POTENTIAL LONG-TERM CRITICAL ISSUES

- The recovery of private businesses.
- HUD waivers to allow for more flexibility.
- Development of unmet needs assessment in partnership with FEMA and RIO to support delegation request for special LTR appropriation.

JULY 18, 2008 MEETING SUMMARY

- Cooperate with councils of governments and serve as resource for information on Flood Zone actions related to enterprise issues (i.e., changing zones or redefining areas).
- Working with HUD on waivers for those impacted by the disaster.
- Partner with outside agencies and oversee CDBG funding.

POTENTIAL RESOURCES TO SUPPORT LONG-TERM RECOVERY

- \$300 million in supplemental funding for statewide economic development through State designation.
- Provide technical assistance on hazard mitigation projects.
- Additional funding may become available.
- Technical assistance for wastewater program.

NOTES

- After the 1993 floods created an effective model to structure the recovery response for the current disaster. The department coordinates efforts for long- and short-term recovery efforts, including technical assistance to individually owned retail businesses.
- 1-800-245-IOWA is office phone for nonemergency response.



**IOWA DEPARTMENT
OF HOMELAND
SECURITY AND
EMERGENCY
MANAGEMENT -
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MITIGATION
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**IOWA
DEPARTMENT OF
NATURAL
RESOURCES**

POTENTIAL LONG-TERM CRITICAL ISSUES

- Areas with high flooding potential.

JULY 18, 2008 MEETING SUMMARY

- Analyzing possible property acquisition projects.
- Oversee HMGP process.
- Coordinate with Iowa Department of Natural Resources for floodplain management strategies.
- Assessing homes in flooded areas for floodplain attachment and coordinating with communities to establish a list of substantially damaged structures.
- Councils of governments will set up initial meeting for communities and public input for technical assistance needs – target end of meetings by July 31, 2008.

POTENTIAL RESOURCES TO SUPPORT LONG-TERM RECOVERY

- HMGP will be available — potential applicants need to respond to the Notice of Funding with a Notice of Intent by September.
- Provide technical assistance on hazard mitigation projects.
- Purchase 2,000 structures within flood zones.

NOTES

- Communities must prioritize projects submitted for funding.
- Iowa is an Enhanced State, which allows it 20% of certain grants allocations through PA and IA for the Hazard Mitigation Grant Program.
- Would like to process documentation of success stories highlighting structures that used mitigation measures following 1993 floods and how they responded in the floods of 2008.

POTENTIAL LONG-TERM CRITICAL ISSUES

JULY 18, 2008 MEETING SUMMARY

- Meet with USDA-FSA and other critical agencies.
- Implement new Farm Bill.

POTENTIAL RESOURCES TO SUPPORT LONG-TERM RECOVERY

NOTES



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**IOWA DEPARTMENT OF
HUMAN SERVICES**

**IOWA
DEPARTMENT OF
HUMAN SERVICES**

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IOWA SBA

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POTENTIAL LONG-TERM CRITICAL ISSUES

JULY 18, 2008 MEETING SUMMARY

- Established list of rental vacancies at housinginiowa.org.
- Provide information and counseling services on preventing foreclosures at 877-622-4866 or iowamortgagehelp.com.

POTENTIAL RESOURCES TO SUPPORT LONG-TERM RECOVERY

- Waiver for income limitations on certain rental properties in the State.
- Share information on the State's Revolving Fund (SRF) for drinking water.

NOTES

POTENTIAL LONG-TERM CRITICAL ISSUES

JULY 18, 2008 MEETING SUMMARY

- Address child protection, cash, food and Medicaid assistance.
- Completed health and safety checks for 4,500 children.

POTENTIAL RESOURCES TO SUPPORT LONG-TERM RECOVERY

NOTES

POTENTIAL LONG-TERM CRITICAL ISSUES

- Under revision.

JULY 18, 2008 MEETING SUMMARY

- Under revision.

POTENTIAL RESOURCES TO SUPPORT LONG-TERM RECOVERY

- Under revision.

NOTES



SAFEGUARD IOWA PARTNERSHIP

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US ARMY CORP OF ENGINEERS

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POTENTIAL LONG-TERM CRITICAL ISSUES

- Insufficient funds to effect full recovery for the State's entities, particularly private organizations or businesses.

JULY 18, 2008 MEETING SUMMARY

- Coordinate public and private partnerships.
- Accept and coordinate public and private donations.
- Solicit donations from corporations, nationwide, that can assist in Iowa's recovery.

POTENTIAL RESOURCES TO SUPPORT LONG-TERM RECOVERY

NOTES

POTENTIAL LONG-TERM CRITICAL ISSUES

- Levee systems (Federal, State and private) need to be considered. Gaps in assistance for funding and repairs need to be identified and addressed.
- Consistency of levee restoration throughout the Midwest.

JULY 18, 2008 MEETING SUMMARY

- Establishment of levee task force.
- Awaiting definition to overall plan and strategy that will shape direction for financial resources.
- Debris removal, housing and levee restoration.
- Repair to nonfederally recognized levees at an 80% Federal/20% local funding share and provide 100% funding for federally recognized levees – they do offer options to possibly cover the 20% local share.
- Established temporary offices in Keokuk and Camp Dodge.
- Levee stability.
- Debris removal: More subject matter experts concerned with over-extended landfills and seeking ways to reduce waste are needed.
- Levee process mirrors actions following 1997 floods with a target of 24-hour turnaround.
- Agricultural levees are an issue.
- Inspect levees throughout the State.
- Coordinate with NRCS on levee issues.
- Establish procedure for expediting permitting process.
- Participate in regional inter-agency Levee Task Force to retain consistent levee restoration throughout Midwest, discuss and analyze alternative approaches for levee restoration.
- Explore various solutions to floodplain issues beyond repairing levees and including non-structural approaches.

POTENTIAL RESOURCES TO SUPPORT LONG-TERM RECOVERY

- PL8499 provides opportunities to coordinate various resources and cover the 20% local share for certain grant options.
- Assist in coordinating resources to plan, repair and contract.
- Potential technical assistance in compliance measures and improvements for nonfederally approved levees.
- Provide technical assistance in floodplain management strategies and plans.
- LIDAR and other aerial photography files.
- Pre-existing coordination with State and Federal agencies.
- Awaiting approval for special supplemental appropriation.

NOTES

- Built temporary levee in Oakville designed to the 25-year flood protection level.
- Identified need for long-term floodplain and risk management processes.
- Need State Partner for PL8499 initiative.
- Private levee owners might find funding alternatives through SBA or EDA.
- USACE has been involved in a feasibility study of buy-outs.



**USDA - APHIS
ANIMAL AND
PLANT HEALTH
INSPECTION
SERVICE**

**USDA FARM
SERVICE
AGENCY**

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POTENTIAL LONG-TERM CRITICAL ISSUES

- Require funding to Iowa DNR for trapping in possible hog escape areas.

JULY 18, 2008 MEETING SUMMARY

- Continue to remove carcasses.
- Searching for live hogs that escaped.

POTENTIAL RESOURCES TO SUPPORT LONG-TERM RECOVERY

NOTES

- ESF #11
- Emergency loans for crops and other agricultural losses.

POTENTIAL LONG-TERM CRITICAL ISSUES

- Livestock losses.
- Commodity issues – crop and livestock impacts from the flooding.

JULY 18, 2008 MEETING SUMMARY

- Coordinating with veterinarians to initiate plans for carcass removal.
- Coordinating local resources to assess animal health on farms and establish plans for response.
- Acquiring loss data for Secretary of Agriculture for crops and agricultural structures.

POTENTIAL RESOURCES TO SUPPORT LONG-TERM RECOVERY

- Oversee commodity programs: CRP, FLP and agriculture producers.
- Oversee emergency loans for crops and other agricultural losses.
- Emergency Conservation Program (ECP) activated and funded to provide emergency funding and technical assistance for farmers and ranchers to rehabilitate farmland damaged by natural disasters and for carrying out emergency water conservation measures in periods of severe drought.
- Debris removal and cropland restoration program including fence repair and replacement.
- Requested waivers from headquarters for disaster sites.
- Oversee the new district program linked to Federal Crop Insurance data that begins October 1. Funds will reflect back to 2000.
- New Farm Bill will aid commodity, nutrition, conservation and rural development programs; implementing new program for disasters.

NOTES

- ESF #11
- Emergency loans for crops and other agricultural losses.
- \$1.5 million in loans in Iowa over last year.



**USDA NATURAL
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CONSERVATION
SERVICE**

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**USDA RURAL
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POTENTIAL LONG-TERM CRITICAL ISSUES

JULY 18, 2008 MEETING SUMMARY

- Limited debris removal.
- Bank stabilization and tracking infrastructure threats.
- Oversee the Emergency Watershed Program supplemental appropriations.
- Analyzing stream channel problems with nine (9) teams of field personnel, county engineers, and emergency management coordinators.
- Oversee \$36 million in EWP appropriations.
- Link with Levee Task Force to assist in potential buy-outs of structures in rural communities.

POTENTIAL RESOURCES TO SUPPORT LONG-TERM RECOVERY

- Established cooperatives with emergency management associations and local entities.
- Oversee long-term Emergency Watershed Program (EWP) floodplain easements. Options include floodplain land buy-outs for the purpose of wetland restoration and off-site flood storage.
- Provide stream channel restoration and some levee refurbishing.
- Cass County has received technical assistance in exploring channel grids to protect the stream bed.

NOTES

- Working with Oakville to explore options.
- OMB has received authorization for appropriation of \$390 million nationwide.
- Working on floodplain easements for two (2) landowners in Oakville area.
- EWP funds fall under a 75% Federal, 25% local cost share.

POTENTIAL LONG-TERM CRITICAL ISSUES

- Single-family recovery and residential repair and funding to support actions.

JULY 18, 2008 MEETING SUMMARY

- Assist elderly homeowners in eligible areas to help in repair and cleanup of homes.
- Oversee delivery of grants and loans to homeowners in rural areas for repairs or new home loans.

POTENTIAL RESOURCES TO SUPPORT LONG-TERM RECOVERY

- Program 502 provides no down payment loans for single-family homes.
- Grants available for homeowners over 60 years of age to assist in cleanup and home repair.
- Revolving loan fund for housing and businesses to rebuild.
- Drinking water grant program.
- Assist communities through rural grants for essential facilities.

NOTES

- Revolving Loan Funds is priority.
- Aid primarily limited to communities with populations of 20,000 or less.
- Awarded 16 projects in 13 declared counties – mostly for fire trucks and emergency services.



**US DEPARTMENT
OF EDUCATION**

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POTENTIAL LONG-TERM CRITICAL ISSUES

JULY 18, 2008 MEETING SUMMARY

- Gathering information on schools.
- Serve as central resource for information on Schools — providing status and project information.

POTENTIAL RESOURCES TO SUPPORT LONG-TERM RECOVERY

NOTES



**US DEPARTMENT
OF LABOR**

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POTENTIAL LONG-TERM CRITICAL ISSUES

- Displaced workforce, businesses interrupted or eliminated as a result of flooding.

JULY 18, 2008 MEETING SUMMARY

POTENTIAL RESOURCES TO SUPPORT LONG-TERM RECOVERY

- National Emergency Grants.
- Applied for \$11 million in supplemental training funds.
- \$6 million on hand with \$11 million available from Workforce Development (unemployment) later.

NOTES



**US DEPARTMENT OF
TRANSPORTATION**

Eric Plosky, Volpe Center,
ESF #14 Coordinator

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POTENTIAL CRITICAL ISSUES

- Rails, particularly privately owned ones need repair or restoration.

JULY 18, 2008 MEETING SUMMARY

- Cooperate with local Economic Development Administration personnel on highway transportation.
- Help determine transportation needs and assist communities and counties with adjusting priorities.
- Temporary offices up in Ames, Iowa and Kansas to address recovery efforts.

POTENTIAL RESOURCES TO SUPPORT LONG-TERM RECOVERY

- \$1 million available for highway relief; some discretion is available on funding uses.
- Technical assistance to address regulatory or jurisdictional issues when program areas involve highways.

NOTES

- Funding flows through State and Metropolitan Planning Organizations (MPOs).



**US DEPARTMENT
OF THE TREASURY**

Carol Polley, IRS

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POTENTIAL LONG-TERM CRITICAL ISSUES

- Misdirected tax payments and financial records.
- Tax payments and employee tax payments misdirected/not deposited in correct accounts or bank.

JULY 18, 2008 MEETING SUMMARY

- Coordinate with Midwest States Banking Commissions to resolve issues.

POTENTIAL RESOURCES TO SUPPORT LONG-TERM RECOVERY

- Tax Relief.
- Offer community outreach operation.
- Assist those impacted by the disaster with ways to balance needs with obligations.

NOTES



US EDA

Robert Cecil, Economic
Development Representative

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POTENTIAL LONG-TERM CRITICAL ISSUES

- Funding for infrastructure and business redevelopment.

JULY 18, 2008 MEETING SUMMARY

- Prepared short- and long-term strategies to support the economic rebuilding effort in Iowa.
- Received \$100 million in supplemental funding.
- State to develop Scope of Work for \$3 million in recovery grant planning funding.

POTENTIAL RESOURCES TO SUPPORT LONG-TERM RECOVERY

- Coordinate operations through local planning districts in support of the Long-Term Community Recovery strategies.
- Supplemental funding to support economic development tasks that are under consideration.
- Financial support for infrastructure projects.
- Revolving loan funds may be possible.
- Expertise to advise and coordinate with resource partners, to find the niche between other agency programs and to advance the economic development mission – restore the economic base of the communities which suffered disaster loss.
- Coordinating efforts with State Department of Economic Development Director Michael Tramontina.
- Within the State of Iowa, CDBG recipients have reallocated \$2 million to support disaster programs in 2008, and will receive priority in future funding.
- Offers assistance options for economic losses suffered in disasters.

NOTES

- Establish safeguards to avoid duplicating resources through SBA.
- As funding becomes available the role will become better defined.
- In 1993, US EDA worked effectively with State EDA and councils of government to further economic redevelopment and new development.
- National EDA has received \$100 million in funding for disaster recovery; the allocation to Iowa has yet to be determined.
- Emphasis on support of SBA and USDA funding and not duplicating their programs – Recovery Coordinators will be provided as a resource.
- Anticipate additional supplemental funding of \$300 million.
- Attempting to secure additional funding for unmet needs.



US EPA

David Doyle

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POTENTIAL LONG-TERM CRITICAL ISSUES

- Landfills are quickly filling, and alternative ways of managing solid waste will be needed.
- Emergency response at wastewater treatment facilities needs to be improved.
- Sustainable development principles need to be applied in redevelopment.

JULY 18, 2008 MEETING SUMMARY

- ESF #3 activities are largely complete.
- ESF #10 activities are winding down.
- ESF #14 support is available.

POTENTIAL RESOURCES TO SUPPORT LONG-TERM RECOVERY

- Applying sustainable redevelopment (Smart Growth) principles in rebuilding efforts, including: Energy Star/energy efficient appliances and homes, water efficiencies, sustainable landscaping, etc.
- Expertise/information on healthy indoor environments, such as mold, asbestos, lead paint, etc., issues.
- Expertise/information on solid waste management.
- Can assist in stormwater management and watershed/wetland restoration.
- Assistance with community involvement/design charrettes.

NOTES

- EPA has been involved in past ESF #14 efforts, including Greensburg, Kansas in 2007.



US HEALTH AND HUMAN SERVICES

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POTENTIAL LONG-TERM CRITICAL ISSUES

- Childcare providers.
- Health waivers for those unemployed as a result of disaster.
- Mental health.

JULY 18, 2008 MEETING SUMMARY

- Tracking senior living centers and residents.
- Medicare and Medicaid change of address issues and how those relate to health maintenance of those displaced.
- Coordinating regional health issues with residents of senior living center.
- Interviewed 120 individuals through DRC for disaster assistance.
- Oversee WIC programs and assist those with prescription difficulties.
- Issued 2,000 medical services cards in one day.

POTENTIAL RESOURCES TO SUPPORT LONG-TERM RECOVERY

- Coordinate with other program areas.
- Limited resources.

NOTES



US HOUSING AND URBAN DEVELOPMENT

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Office Director

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POTENTIAL LONG-TERM CRITICAL ISSUES

- Displaced persons and families due to uninhabitable housing – public and private.
- Extended displacements.
- Replacing affordable and multifamily housing stock.

JULY 18, 2008 MEETING SUMMARY

- Compile housing options for displaced families and persons.
- Provide funds for clean-up and repair of damaged and destroyed properties.
- Moratorium on FHA foreclosures for 90 days.
- Establish and maintain housing vacancy lists in Cedar Rapids and Mason City.
- Completing multifamily housing assessments.
- Collaborate with other agencies where missions intersect.
- Assist and review waivers from entitlements cities and the State of Iowa in the use of CDBG funds for disaster relief.
- Provide technical assistance as communities reprioritize CDBG funding.
- Manage hotline for single-family flood services. Line includes FHA mortgage assistance.
- Assist in construction of 2,000 new housing units in Iowa.
- Seek partner for Manufactured Housing in Cedar Rapids, desire expedient turnaround.
- Review DED waivers, as well as entitlement and paperwork waivers.
- Coordinate with Floodplain and Mitigation Task Force.
- Researching funding opportunities to build affordable single and multifamily homes.

POTENTIAL RESOURCES TO SUPPORT LONG-TERM RECOVERY

- Redirect CDBG grant funding from HUD to State, allowing those funds to lose Federal identity and thus apply as local source funds for most Federal grants.
- Anticipate large appropriation through CDBG and distributed through State.
- Oversee Program 203K (Mortgage Assistance for Disaster Victims) and 203H (Assistance for Victims with Home Rehabilitation Due to Disaster).

NOTES

- Point of Contact is in JFO.
- Need printout for housing in 100- and 500-year floodplain.
- Provided personnel support in Cedar Rapids.
- Jane Megs is HUD headquarters contact.



US SBA

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POTENTIAL LONG-TERM CRITICAL ISSUES

JULY 18, 2008 MEETING SUMMARY

- Under revision.

POTENTIAL RESOURCES TO SUPPORT LONG-TERM RECOVERY

- Under revision.

NOTES

- Under revision.



FEMA

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POTENTIAL LONG-TERM CRITICAL ISSUES

JULY 18, 2008 MEETING SUMMARY

- Gather all information on dams.

POTENTIAL RESOURCES TO SUPPORT LONG-TERM RECOVERY

NOTES



FEMA

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POTENTIAL LONG-TERM CRITICAL ISSUES

JULY 18, 2008 MEETING SUMMARY

- Coordinate Public and Private Partnerships.
- Developing business workshops for recovery.
- Meet with mayors in severely damaged areas.
- Coordinate with chambers of commerce to establish measures of need.

POTENTIAL RESOURCES TO SUPPORT LONG-TERM RECOVERY

- Commission to oversee recovery efforts.
- Establish Iowa Recovery Office with director to coordinate efforts of State and Federal organization.

NOTES



ESF #14 LTRC

Steve Castaner, Branch Director

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POTENTIAL LONG-TERM RECOVERY CRITICAL ISSUES

- Developing a cooperative environment for identifying and addressing long-term recovery issues.
- Creating an immediate understanding of the impacts of today's decisions on the two- (2), five- (5), 10- and 100-year horizons.

JULY 18, 2008 MEETING SUMMARY

- Developing a mechanism to support the State and local governments with targeted technical assistance for long-term community recovery actions.
- Inter-Agency Task Force will maintain Inter-Agency Coordination Tool (this summary report).
- Inter-Agency Task Force will keep information updated and Point of Contact for each agency current.

POTENTIAL RESOURCES TO SUPPORT LONG-TERM RECOVERY

- Where need is identified through an ESF #14 assessment process:
 - Technical assistance.
 - Planning support.
 - Coordination of Federal and other Long-Term Community Recovery resources.

NOTES

- ESF #14 is deeply committed to State to create opportunities for better communities, smart development and recovery.

**CORPORATION
FOR NATIONAL
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SERVICE**

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POTENTIAL LONG-TERM CRITICAL ISSUES

JULY 18, 2008 MEETING SUMMARY

- Oversee large volunteer force.
- Membership active in Oakville, Parkersburg and Cedar Rapids.

POTENTIAL RESOURCES TO SUPPORT LONG-TERM RECOVERY

- 230 VISTA members scheduled to enter Iowa to assist population with very limited financial means.

NOTES

- Embedded with American Red Cross.
- Seeking \$200,000 to support a year-long mission for 20 professionals.



**NATIONAL
VOLUNTARY
ORGANIZATION
ACTIVE IN
DISASTER**

POTENTIAL LONG-TERM CRITICAL ISSUES

JULY 18, 2008 MEETING SUMMARY

POTENTIAL RESOURCES TO SUPPORT LONG-TERM RECOVERY

NOTES

For revisions or changes to the *Inter-Agency Coordination Team (IACT) Meeting Summary* or to post updates, please contact susan.grgurich@dhs.gov.

Meetings of Interest

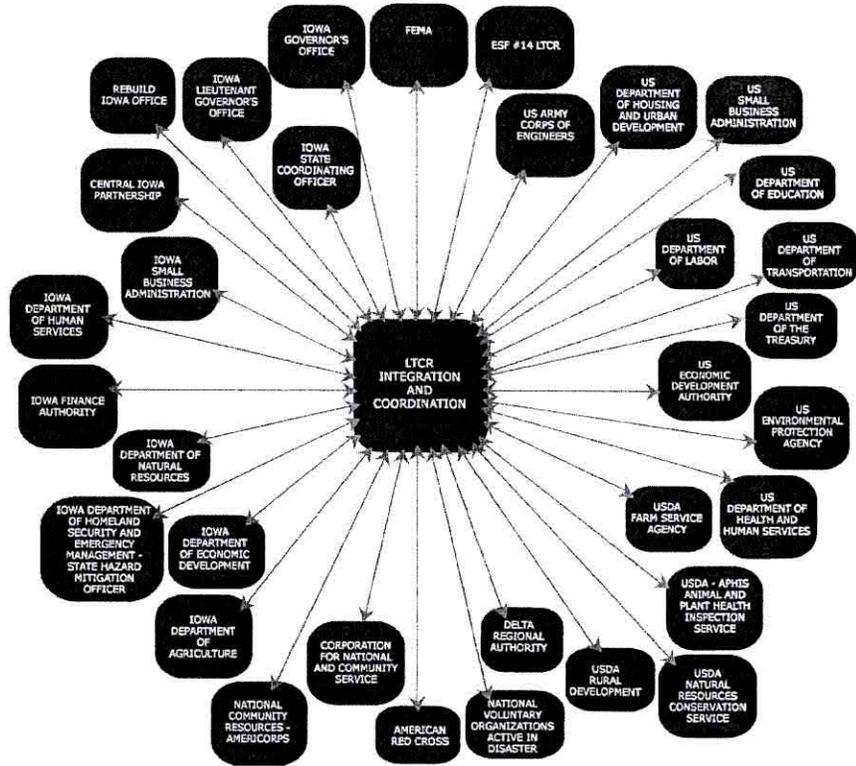
JULY 2008		
31		Cedar Rapids RIAC Meeting SPEAK UP IOWA! Public Listening Session Concurrent with RIAC Meeting
		Cedar Rapids, IA
AUGUST 2008		
5		Wapello RIAC Meeting SPEAK UP IOWA! Public Listening Session Concurrent with RIAC Meeting
		Wapello, IA
6	9:30	RIO Task Force Meeting: Public Health and Healthcare
		Urbandale Public Library Urbandale, IA
6	9:30	RIO Task Force Meeting: Floodplain Management
		West Des Moines Learning & Resource Center West Des Moines, IA
7	9:30	RIO Task Force Meeting: Long-Term Recovery Planning
		Urbandale Public Librar
11		Red Oak RIAC Meeting SPEAK UP IOWA! Public Listening Session Concurrent with RIAC Meeting
		Red Oak, IA
12	9:00	INTER-AGENCY COORDINATION TEAM MEETING
		JFO, Urbandale, IA
12		Fort Dodge RIAC Meeting SPEAK UP IOWA! Public Listening Session Concurrent
		Fort Dodge, IA
13	TBD	RIO Task Force Meeting: Agriculture and Environment
		Johnston Public Library Johnston, IA
19		Cedar Falls RIAC Meeting SPEAK UP IOWA! Public Listening Session Concurrent with RIAC Meeting
		Cedar Falls, IA
SEPTEMBER 2008		
1 - 4		45-DAY REPORT

NOTE: All meeting dates, times and places subject to change.

FEDERAL PARTNERS

- U.S. Federal Emergency Management Agency
- U.S. Department of Agriculture
- U.S. Department of Homeland Security
- U.S. Department of Housing and Urban Development
- U.S. Small Business Administration
- U.S. Department of Commerce
- U.S. Department of Defense
- U.S. Department of Energy
- U.S. Department of Health and Human Services
- U.S. Department of the Interior
- U.S. Department of Labor
- U.S. Department of Transportation
- U.S. Department of the Treasury
- Environmental Protection Agency
- Corporation for National and Community Service
- Delta Regional Authority
- American Red Cross
- National Voluntary Organization Active in Disaster

INTER-AGENCY INTEGRATION AND COORDINATION

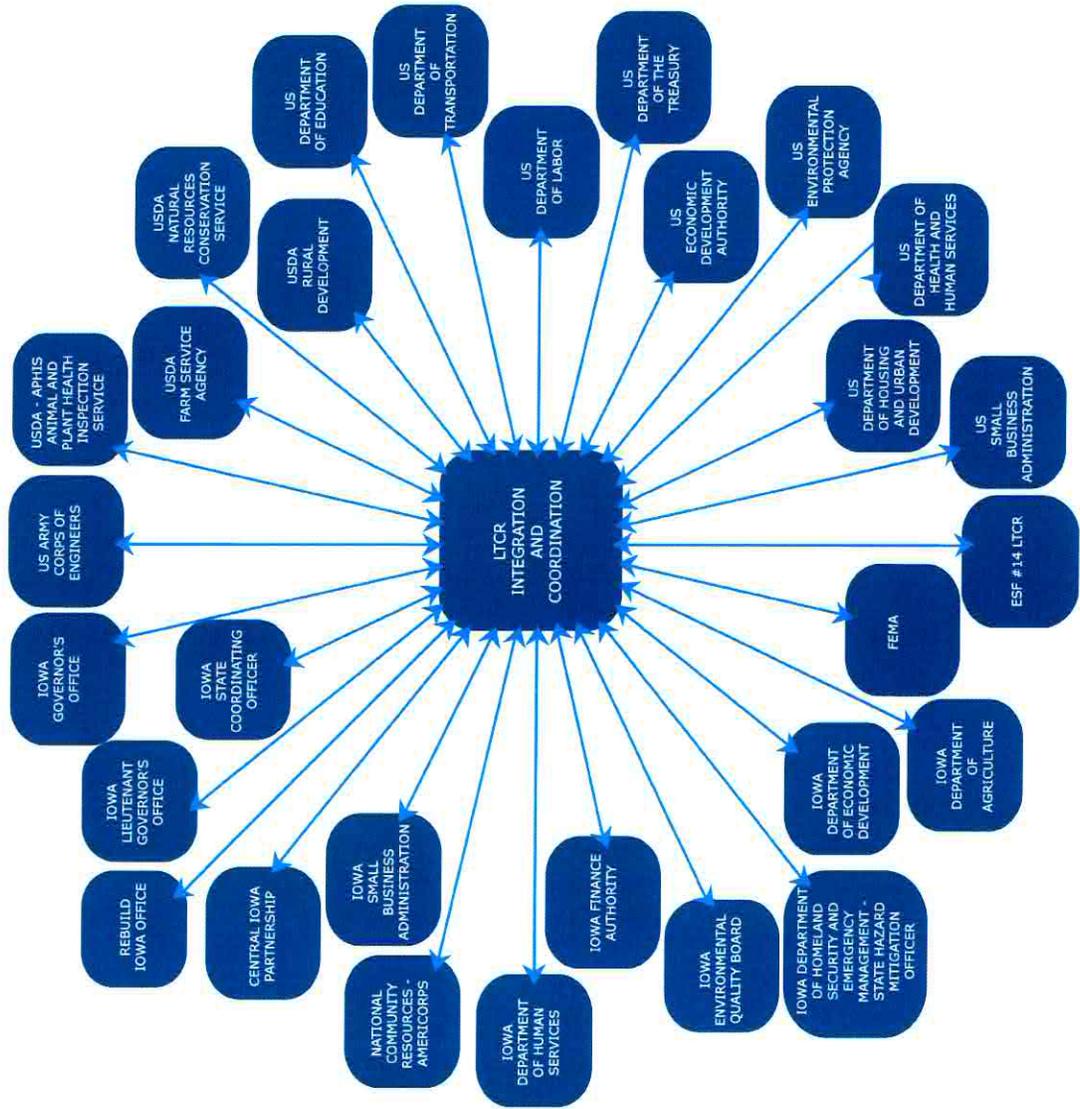


LONG-TERM COMMUNITY RECOVERY: WHY IT IS IMPORTANT.

The mission of ESF #14, as revised by Federal partners during the 9/21/06 ESF #14 Meeting, is: *To promote successful long-term recoveries for communities suffering extraordinary damages. It does so by working through the State to identify and coordinate potential sources of recovery funding, and to provide technical assistance in the form of impact analyses and recovery planning support where appropriate. The mission is complete when all potential resources have been identified and coordinated with the severely damaged areas, when warranted impact analyses are done, and when the necessary support has been provided to launch community recovery plans.*

Using a holistic approach, the centerpiece of ESF #14 Long-Term Community Recovery is coordination. Through the ESF #14 LTCR process more partners, stakeholders and participants are engaged in addressing community long-term recovery needs than routine FEMA recovery program areas and other Federal, State and local recovery initiatives acting independently. ESF #14 helps communities identify and more effectively apply long-term recovery resources found within these multiple partners. The ESF #14 LTCR process has significant benefits to the recovery effort: Decision-making is more efficient. Duplication of effort is avoided. Funding streams are leveraged.

INTER-AGENCY INTEGRATION AND COORDINATION



:: 7 IMPORTANT FACTS ABOUT

ESF #14

LONG-TERM COMMUNITY RECOVERY



MISSION The mission of ESF #14 LTRC is to promote successful long-term recoveries for communities suffering extraordinary damages. It does so by working through the State to: identify and coordinate potential sources of recovery funding; and to provide technical assistance in the form of impact analyses and recovery planning support where appropriate.

The mission is complete when all potential resources have been identified and coordinated with the severely damaged areas, when warranted impact analyses are done, and when the necessary support has been provided to launch community recovery plans.

ROLES AND RESPONSIBILITIES

Federal agencies coordinate activities and assessments of need for community assistance through ESF #14 LTCR. They may continue to provide recovery assistance under independent authorities to State, local and tribal governments, the private sector and individuals.

State and local authorities have equally important roles in ESF #14 LTCR success. Responsibilities of Federal, State and local participants and other stakeholders include:

FEMA - Convenes, coordinates ESF #14 LTCR resources and activities.

ESF #14 LTCR FEDERAL PRIMARY AGENCIES - Identify, facilitate and coordinate Federal activities and resources in disaster areas; lead assessment and planning efforts; provide support to Incident Support Teams; coordinate requests for technical assistance; collaborate with State agency counterparts.

ESF #14 LTCR FEDERAL SUPPORT AGENCIES - Add technical expertise and program assistance; collaborate and provide advice to stakeholders; identify Federal activities and resources in the disaster area.

REGIONAL COORDINATOR - Works with states in the region to provide information and resources on ESF #14 LTCR; coordinates the development of a *Recovery Action Plan* specific to the region; maintains contact with national FEMA and State contacts.

For more information about ESF #14 LTCR visit www.fema.gov/rebuild/ltcr/index.shtm

For more information on ESF #14 Technical Guidance visit www.fema.gov/rebuild/ltcr/plan_resource.shtm

For more information on Federal, private and nonprofit recovery resources, visit www.fema.gov. Choose "grants" from the drop down menu in the lower left search window and click go.

Visit www.dhs.gov/nrp to access the *National Response Plan (NRP)*



STATE - Works closely with ESF #14 LTCR leaderships to coordinate and guide ESF #14 LTCR activities; develops common and strategic ESF #14 LTCR objectives, incident and supporting action plans; identifies resource requirements; collects information; works closely with local officials; identifies and manages State agencies to support ESF #14 LTCR.

LOCAL GOVERNMENT - May appoint a local government contact to coordinate with ESF #14 LTCR; identifies and communicates local priorities, activities and contact information (funding, projects, programs, etc.) in the disaster area; identifies local resources in the disaster area; identifies, integrates and provides copies to ESF #14 LTCR of applicable existing local planning activities (plans, maps, resources, etc.).

PRIVATE SECTOR - Coordinates with ESF #14 LTCR; provides skills, resources, services and background information; continues feedback loops; assists in motivating the community to engage in recovery; champions projects critical to recovery.

NON-GOVERNMENTAL ORGANIZATIONS (NGOs) - Identify businesses, industries and nonprofits impacted by the disaster; identify, develop and coordinate contact lists, networking channels and resources for affected NGOs; identify and integrate applicable existing NGO planning activities in coordination with ESF #14 LTCR; build support in the community for LTCR efforts.

This publication is intended for general audiences and Federal, State and local authorities and program areas that interface with ESF #14 LTCR.

1

ESF #14 LTCR is a Part of the National Response Plan (NRP)

The *National Response Plan (NRP)* describes how the Federal government coordinates with State, local and tribal governments in response to Incidents of National Significance – disasters that require assistance beyond routine recovery programming. It defines how integration of the response effort occurs at all levels of government. The *NRP* establishes a comprehensive, national, all-hazards approach to domestic incident management utilizing a wide spectrum of capabilities from multiple public, private and nonprofit recovery partners.

The *NRP* applies a functional approach that groups the recovery capabilities of Federal departments and agencies into Emergency Support Function (ESFs) to manage support most likely to be needed. Extraordinary disasters may require the support of some or all of the fifteen (15) ESFs identified in the *NRP* (see sidebar). Most ESFs are involved in immediate response activities. However, ESF #14 Long-Term Community Recovery (LTCR) works through the State to help communities identify and launch the long-term recovery initiatives that address more enduring challenges in the aftermath of a disaster.

Level of support offered by ESF #14 LTCR is dependent upon the needs of each community in response to a specific disaster. Size and scope of the disaster, the community's ability to respond and how much help State and local governments want are considered when determining levels of ESF #14 LTCR support.

National Response Plan



EMERGENCY SUPPORT FUNCTIONS (ESFs) OF THE NATIONAL RESPONSE PLAN (NRP)

- #1 – Transportation
- #2 – Communications
- #3 – Public Works and Engineering
- #4 – Firefighting
- #5 – Emergency Management
- #6 – Mass Care, Housing and Human Services
- #7 – Resource Support
- #8 – Public Health and Medical Services
- #9 – Urban Search and Rescue
- #10 – Oil and Hazardous Materials Response
- #11 – Agriculture and Natural Resources
- #12 – Energy
- #13 – Public Safety and Security
- #14 – Long-Term Community Recovery (LTCR)**
- #15 – External Affairs

AUTHORITIES

Legal authorities for ESF #14 LTCR are found in the Robert T. Stafford Disaster Relief and Emergency Assistance Act of 1988 (as amended); Disaster Relief Act of 1974; Homeland Security Appropriations Act of 2007; Homeland Security Act of 2002.

ESF #14 FEDERAL AND NATIONAL PARTNERS

COORDINATING AGENCY:

U.S. Department of Homeland Security/Federal Emergency Management Agency (FEMA)

PRIMARY AGENCIES:

U.S. Department of Agriculture
U.S. Department of Homeland Security
U.S. Department of Housing and Urban Development
Small Business Administration

SUPPORT AGENCIES:

U.S. Department of Commerce
U.S. Department of Defense
U.S. Department of Energy
U.S. Department of Health and Human Services
U.S. Department of the Interior
U.S. Department of Labor
U.S. Department of Transportation
U.S. Department of the Treasury
Environmental Protection Agency

American Red Cross
Delta Regional Authority
Tennessee Valley Authority
U.S. Corporation for National and Community Service

Source: National Response Plan (NRP)

2

ESF #14 Coordinates LTCR Resources

Federal LTCR expertise is embedded in the traditional recovery assistance programs of Federal departments and agencies.

When circumstances warrant a higher level of support, ESF #14 LTCR serves as a mechanism to coordinate long-term recovery resources within Federal programs; complete necessary damage and impact assessments; provide technical assistance, and coordinate with State and local stakeholders.

Although no funding dollars are attached to or predetermined for ESF #14 LTCR, the ESF #14 LTCR process assists a community in identifying recovery resources found in other Federal and private funding programs and helps the community coordinate those resources to achieve a greater impact on recovery than any one alone can affect.

Depending on the disaster's long-term impacts and the impacted community's recovery capacities, ESF #14 support may not be warranted at all. When provided, the intended benefit of ESF #14 is to *expedite, leverage and increase* the effectiveness of Federal and other long-term recovery assistance through coordination and collaboration among Primary and Support Federal Agencies (see sidebar) and local communities.

3 :: ESF #14 Aids Long-Term Community Recovery (LTCR) from Disasters with Extraordinary Impacts ::

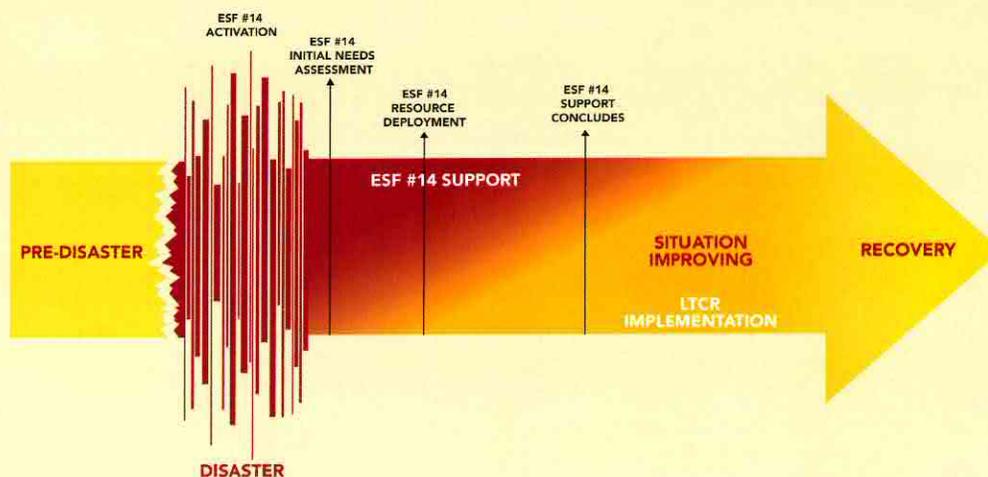
ESF #14 and LTCR are often used interchangeably. Differentiating the terms enhances the understanding of their relationship.

LTCR is a process. It may occur within an ESF #14 activation; it can also occur when ESF #14 is not activated. LTCR support absent ESF #14 activation is within routine Federal recovery support – FEMA Public Assistance (PA), Mitigation, Individual Assistance (IA) and through Other Federal Agencies (OFAs). LTCR in this context refers to a broad and enduring recovery progression that can take impacted communities years to complete.

ESF #14 is the coordinating structure that when activated, coordinates the Federal long-term recovery response to disasters with extraordinary impacts. When ESF #14 LTCR is activated, it encompasses the specific actions defined in its mission. Its activities typically take place early in the post-disaster recovery process.

ESF #14 LTCR's mission as an ESF is activated in the beginning phase of the recovery effort. Its mission is considered concluded when (1) long-term impact analyses are performed; (2) when necessary technical support to establish local long-term recovery strategies and/or plans is provided; and (3) when coordination of long-term recovery resources needed by the impacted community to launch its recovery efforts are complete. Even though ESF #14 assistance may now conclude, local LTCR efforts and processes will go on – at an accelerated pace and with a greater chance of success.

ESF #14 SEQUENCE OF SUPPORT



4 :: ESF #14 is Used Selectively ::

Activation is considered when routine Federal, State, local, and tribal disaster assistance mechanisms are insufficient to meet the extraordinary challenges of affected jurisdictions. ESF #14 LTCR can be activated by the National Response Coordination Center (NRCC) in response to a major disaster declared under the Stafford Act.

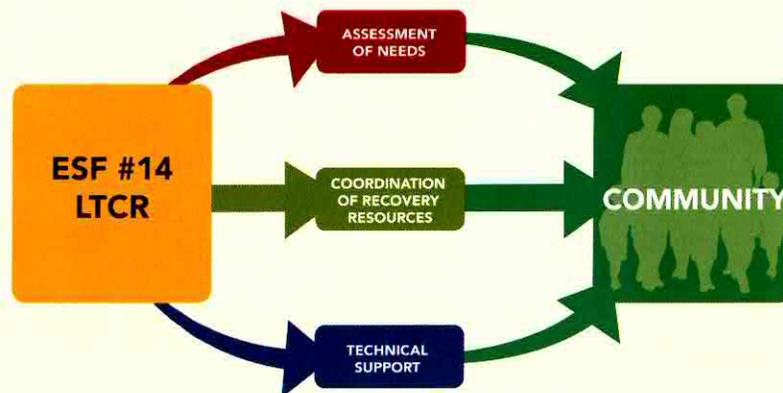
Field deployment of ESF #14 LTCR resources typically occurs in response to a request from a U.S. Department of Homeland Security/Federal Emergency Management Agency (FEMA) Federal Coordinating Officer (FCO). The State can also request ESF #14 support. A State's request is routinely in consultation with its State Coordinating Officer (SCO) and the FCO.

5 :: ESF #14 LTCR is a Process ::

ESF #14 LTCR initiatives are disaster-specific, incremental to other recovery programs and targeted at the community level. ESF #14 LTCR recognizes the primary role of State and local communities in leading the community's long-term recovery efforts. Activities performed under the auspices of ESF #14 LTCR focus on identifying a community's long-term needs and building capacity of the State and local authorities to address those needs.

Typically, initial ESF #14 LTCR activities include a greater level of direct support. By the later stages of the process, sufficient capacity should have been developed to allow communities to fully implement their own recovery.

ESF #14 LTCR ROLE IN COMMUNITY RECOVERY



ESF #14 LTCR provides the coordination mechanisms to extend support in the following three (3) areas:

ASSESSMENT

- Assesses the long-term recovery needs in impacted areas. ESF #14 LTCR assessments consider social, environmental and economic impacts; the community's economic health prior to the disaster; and the post-disaster capacity of the community to recover.

COORDINATION

- Convenes interagency recovery expertise to provide strategic guidance to long-term recovery efforts.
- Advises on the long-term implications of short-term response activities on recovery, and coordinates the transition from response to recovery operations.
- Identifies and addresses long-term recovery issues, including those that fall between gaps of existing recovery mandates of Federal, State and local departments and agencies.
- Avoids duplication of assistance; coordinates program application processes and planning requirements to streamline assistance processes; and identifies and coordinates resolutions of policy and program issues.
- Identifies programs and activities across the public, private and nonprofit sectors that similarly support a community's long-term recovery, and promotes cooperation between them.
- Identifies appropriate Federal, State, local and other public, private and nonprofit programs and agencies to support implementation of LTCR planning, and identifies gaps in available resources.

TECHNICAL SUPPORT

- Works with State, local, and tribal governments; Non-Governmental Organizations (NGOs); and private-sector organizations to support long-term recovery planning for highly impacted communities.
- Links recovery planning to sound risk reduction practices to assure a more viable recovery.
- Strategically applies subject matter expertise to initiate a process to help communities recover from disasters.

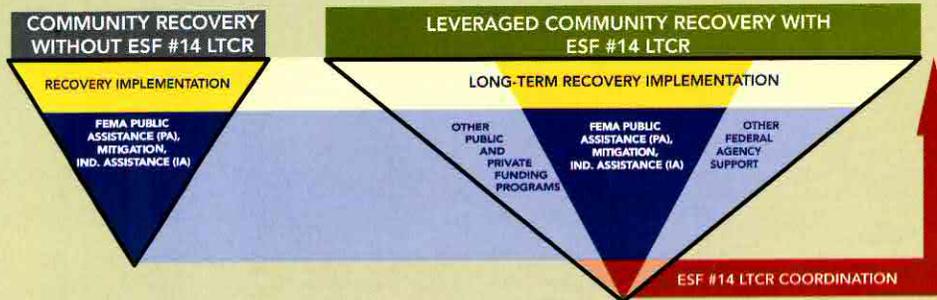
6 :: Coordination is the Centerpiece of ESF #14 LTCR ::

Coordination is the centerpiece of ESF #14 LTCR. ESF #14 LTCR involves more partners, stakeholders and participants than traditional efforts found within routine FEMA recovery program areas (PA, Mitigation, IA) and other Federal, State and local recovery initiatives. It coordinates the long-term recovery resources found within these multiple partners so that

resources are more effectively applied to the long-term recovery needs of a community:

- Decision-making is more efficient.
- Duplication of effort is avoided.
- Funding streams are leveraged.

ESF #14 LEVERAGES LONG-TERM RECOVERY



7 :: Products and Outcomes are Based on Community Needs::

ESF #14 LTCR products and outcomes can vary widely from community to community. They are based on long-term recovery needs identified by the State and disaster-impacted communities and a community's capacity to effectively address the challenges ahead.

An important ESF #14 LTCR outcome is the community's ability to articulate a vision for its long-term recovery. Another is facilitating the engagement of a wide-range of recovery resources that can be applied to a community's long-term needs.



A SUCCESSFUL LONG-TERM COMMUNITY RECOVERY PROCESS IS:

- Clear and has distinct operationally defined objectives.
- Holistic, incorporating all elements of a community as part of the long-term recovery process.
- Locally supported and community-driven.
- Embraced by State and local elected officials, recovery stakeholders and residents.
- Significantly engaged with the public.
- Transparent and dynamic, creating ongoing dialogue and updates with participants, stakeholders and the public.
- Clear about the LTCR Project identification process.
- Identified by the assignment of champions to specific LTCR projects.
- Complete when the necessary support is provided to launch a community's long-term recovery plan.